

The EPA Administrator, Gina McCarthy, signed the following final rule on 10/16/14, and EPA is submitting it for publication in the *Federal Register*. While we have taken steps to ensure the accuracy of this Internet version of the rule, it is not the official version of the rule for purposes of regulatory requirements. Please refer to the official version in a forthcoming *Federal Register* publication, which will appear on the Government Printing Office's FDsys website: <http://www.gpo.gov/fdsys/search/home.action> and on Regulations.gov: <http://www.regulations.gov> in Docket No. EPA-HQ-OAR-2013-0263. Once the official version of this document is published in the *Federal Register*, this version will be removed from the Internet and replaced with a link to the official version.

6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 82

[EPA-HQ-OAR-2013-0263; FRL-9917-98-OAR]

RIN 2060-AR04

Protection of Stratospheric Ozone: Adjustments to the Allowance System for Controlling HCFC Production, Import and Export, 2015-2019

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is adjusting the allowance system for the consumption and production of hydrochlorofluorocarbons (HCFCs). Under the Clean Air Act, EPA is required to phase out production and import of these chemicals in accordance with the *Montreal Protocol on Substances that Deplete the Ozone Layer* (Protocol). Under the Protocol, total United States HCFC production and consumption is capped, and will be completely phased out by 2030. Today's action announces the availability of annual production and consumption allowances for HCFC-22, HCFC-142b, HCFC-123, and HCFC-124 for 2015-2019. This rule also makes minor changes to the reclamation regulations, updates the use restrictions to account for a recent amendment to the Clean Air Act, and finalizes a *de minimis* exemption to the use restrictions for certain uses of HCFC-225ca/cb and HCFC-124.

DATES: This final rule is effective on January 1, 2015.

ADDRESSES: EPA has established a docket for this action under Docket ID No. **EPA-HQ-OAR-2013-0263**. All documents in the docket are listed on the www.regulations.gov website.

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Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy at: EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue NW, Washington, DC 20004. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Air and Radiation Docket is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: Elizabeth Whiteley by telephone at (202) 343-9310 or by email at whiteley.elizabeth@epa.gov, or by mail at United States Environmental Protection Agency, Stratospheric Protection Division, Stratospheric Program Implementation Branch (6205J), 1200 Pennsylvania Ave, NW, Washington DC, 20460. You may also visit the website of EPA's Stratospheric Protection Division at www.epa.gov/ozone/strathome.html for further information about EPA's stratospheric ozone protection regulations, the science of ozone layer depletion, and related topics.

SUPPLEMENTARY INFORMATION:

Acronyms and Abbreviations. The following acronyms and abbreviations are used in this document.

ANPRM – Advance Notice of Proposed Rulemaking

CAA – Clean Air Act

CAAA – Clean Air Act Amendments of 1990

CFC – Chlorofluorocarbon

CFR – Code of Federal Regulations

EPA – Environmental Protection Agency

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FR – Federal Register

GWP – Global Warming Potential

HCFC – Hydrochlorofluorocarbon

HVACR – Heating, Ventilating, Air Conditioning and Refrigeration

Montreal Protocol or Protocol – *Montreal Protocol on Substances that Deplete the Ozone Layer*

MOP – Meeting of the Parties

MT – Metric Ton

ODP – Ozone Depletion Potential

ODS – Ozone-Depleting Substance(s)

Party – States and regional economic integration organizations that have consented to be bound by the *Montreal Protocol on Substances that Deplete the Ozone Layer*

RACA – Request for Additional Consumption Allowances

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I. General Information

A. Does This Action Apply to Me?

This rule may affect the following categories:

- Industrial Gas Manufacturing entities (NAICS code 325120), including fluorinated hydrocarbon gas manufacturers and reclaimers;
- Other Chemical and Allied Products Merchant Wholesalers (NAICS code 424690), including chemical gases and compressed gases merchant wholesalers;
- Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing entities (NAICS code 333415), including air-conditioning equipment and commercial and industrial refrigeration equipment manufacturers;
- Air-Conditioning Equipment and Supplies Merchant Wholesalers (NAICS code 423730) , including air-conditioning (condensing unit, compressors) merchant wholesalers;
- Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers (NAICS code 423620), including air-conditioning (room units) merchant wholesalers;
- Plumbing, Heating, and Air-Conditioning Contractors (NAICS code 238220), including Central air-conditioning system and commercial refrigeration installation, HVACR contractors;

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- Refrigerant reclaimers, manufacturers of recovery/recycling equipment, and refrigerant recovery/recycling equipment testing organizations;
- Fire Extinguisher Chemical Preparations Manufacturing (325998); Portable Fire Extinguishers Manufacturing (339999); Other Aircraft Parts and Auxiliary Equipment Manufacturing (336413);
- Surgical Appliance and Supplies Manufacturing (339113); Ophthalmic goods manufacturing (339115); General Medical and Surgical Hospitals (622110); Specialty (Except Psychiatric and Substance Abuse) Hospitals (622310);
- Entities Performing Solvent Cleaning, (including but not necessarily limited to NAICS subsector codes 332 and 335).

This list is not intended to be exhaustive, but rather provides a guide for readers regarding the types of entities that could potentially be regulated by this action. Other types of entities not listed in this table could also be affected. To determine whether your facility, company, business organization, or other entity is regulated by this action, you should carefully examine these regulations. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the “**FOR FURTHER INFORMATION CONTACT**” section.

II. Background

A. How Does the Montreal Protocol Phase Out HCFCs?

The *Montreal Protocol on Substances that Deplete the Ozone Layer* is the international agreement aimed at reducing and eventually eliminating the production and consumption of ozone-depleting substances (ODS). The United States was one of the original signatories to the 1987 Montreal Protocol and ratified the Protocol in 1988. Congress then enacted, and President George H.W. Bush signed into law, the Clean Air Act Amendments of 1990 (CAAA) to ensure

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that the United States could satisfy its obligations under the Montreal Protocol. Title VI of the Act (codified as 42 U.S.C. Chapter 85, Subchapter VI), titled Stratospheric Ozone Protection, includes restrictions on production, consumption, and use of ODS that are subject to acceleration if “the Montreal Protocol is modified to include a schedule to control or reduce production, consumption, or use . . . more rapidly than the applicable schedule” prescribed by the statute (see Clean Air Act section 606(a)(3)). Both the Montreal Protocol and the Clean Air Act (CAA) define consumption as production plus imports minus exports (see CAA section 601(6)).

In 1990, as part of the London Amendment to the Montreal Protocol, the Parties identified HCFCs as “transitional substances” to serve as temporary, lower ozone depletion potential (ODP) substitutes for chlorofluorocarbons (CFCs) and other ODS. EPA similarly viewed HCFCs as “important interim substitutes that will allow for the earliest possible phaseout of CFCs and other class I substances¹” (58 FR 65026, December 10, 1993). In 1992, through the Copenhagen Amendment to the Montreal Protocol, the Parties created a detailed phaseout schedule for HCFCs, beginning with a cap on consumption for developed countries not operating under Article 5 of the Montreal Protocol (non-Article 5 Parties), a schedule to which the United States adheres. The consumption cap for each non-Article 5 Party was set at 3.1 percent (later tightened to 2.8 percent) of a Party’s CFC consumption in 1989, plus a Party’s consumption of HCFCs in 1989 (weighted on an ODP basis). Based on this formula, the HCFC consumption cap for the United States was set at 15,240 ODP-weighted metric tons, effective January 1, 1996. This cap is the United States HCFC consumption baseline.

The 1992 Copenhagen Amendment created a schedule with graduated reductions and eventual phaseout of HCFC consumption (Copenhagen, 23-25 November, 1992, Decision IV/4).

¹ Class I refers to the controlled substances listed in appendix A to 40 CFR part 82 subpart A. Class II refers to the controlled substances listed in appendix B to 40 CFR part 82 subpart A; HCFCs are class II substances.

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The schedule for non-Article 5 Parties initially called for tighter consumption caps based on a Party's baseline, as follows: an annual consumption cap equal to 65 percent of baseline in 2004, 35 percent of baseline in 2010, 10 percent of baseline in 2015, and 0.5 percent of baseline in 2020, with a complete HCFC phaseout by 2030.

The Copenhagen Amendment did not cap HCFC production. In 1999, the Parties created a cap on production for non-Article 5 Parties through an amendment to the Montreal Protocol agreed to at the Eleventh Meeting of the Parties (Beijing, 29 November – 3 December 1999, Decision XI/5). The cap on production was set at the average of: (a) 1989 HCFC production plus 2.8 percent of 1989 CFC production, and (b) 1989 HCFC consumption plus 2.8 percent of 1989 CFC consumption. Based on this formula, the HCFC production cap for the United States was set at 15,537 ODP-weighted metric tons (MT), effective January 1, 2004. This cap is the United States HCFC production baseline.

To further protect human health and the environment, the Parties to the Montreal Protocol adjusted the phaseout schedule for HCFCs at the 19th Meeting of the Parties in September 2007. As a result of the Montreal Adjustment (reflected in Decision XIX/6),² the United States and other non-Article 5 parties were obligated to reduce HCFC production and consumption to 25 percent of baseline by 2010, rather than 35 percent as previously required. The other milestones remain the same. The adjustment also resulted in a phaseout schedule for HCFC production that parallels the consumption phaseout schedule. All production and consumption for non-Article 5 Parties must be phased out by 2030.

Decision XIX/6 also adjusted the provisions for Parties operating under paragraph 1 of Article 5, considered as developing countries under the Protocol: (1) to set HCFC production and

² The adjustment entered into force and became binding for all Parties on May 14, 2008.

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consumption baselines based on the average 2009-2010 production and consumption, respectively; (2) to freeze HCFC production and consumption at those baselines in 2013; and (3) to add stepwise reductions to 90 percent of baseline by 2015, 65 percent by 2020, 32.5 percent by 2025, and an average of 2.5 percent for 2030-2039. All production and consumption for Article 5 Parties must be phased out by 2040.

In addition, Decision XIX/6 adjusted Article 2F to allow non-Article 5 Parties to produce “up to 10 percent of baseline levels” for export to Article 5 countries “in order to satisfy basic domestic needs” until 2020. Paragraph 14 of Decision XIX/6 notes that no later than 2015, the Parties would consider “further reduction of production for basic domestic needs” in 2020 and beyond. Paragraph 3 of Decision XIX/6 contains the accelerated phaseout schedule, allowing consumption and production up to 0.5 percent of baseline from 2020-2030 for servicing needs only. Pursuant to paragraph 13 of Decision XIX/6, the Parties will review in 2015 and 2025, respectively, the need for the “servicing tails” for Article 5 and non-Article 5 countries. EPA uses the term “servicing tail” to refer to an amount of HCFCs used to service existing equipment, such as certain types of air-conditioning and refrigeration appliances.

B. How Do the Clean Air Act and EPA Regulations Phase Out HCFCs?

The Clean Air Act schedules for the phaseout of HCFC production and consumption, and for the restriction of HCFC use, appear in section 605. EPA has used its authority under section 606 to accelerate those schedules. EPA regulations that apply to production and consumption of HCFCs are designed to enable the United States to meet the phaseout schedule under the Montreal Protocol.

The United States has chosen to implement the Montreal Protocol phaseout schedule on a chemical-by-chemical basis. In 1992, environmental and industry groups petitioned EPA to

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implement the required phaseout by eliminating the HCFCs with the highest ozone depletion potential first. Based on data available at that time, EPA believed the United States could meet, and possibly exceed, the required Montreal Protocol reductions through a chemical-by-chemical phaseout that employed a “worst-first” approach. In 1993, as authorized by section 606 of the CAA, EPA established a phaseout schedule that eliminated HCFC-141b first and would greatly restrict HCFC-142b and HCFC-22 next, followed by restrictions on all other HCFCs and ultimately a complete phaseout (58 FR 15014, March 18, 1993, and 58 FR 65018, December 10, 1993).

On January 21, 2003, EPA promulgated regulations (68 FR 2820, January 21, 2003, “2003-2009 Rule”) to ensure compliance with the first reduction milestone in the HCFC phaseout: the requirement that by January 1, 2004, the United States reduce HCFC consumption to 65 percent of baseline and freeze HCFC production. In the 2003-2009 Rule, EPA established chemical-specific consumption and production baselines for HCFC-141b, HCFC-22, and HCFC-142b for the initial regulatory period ending December 31, 2009. Section 601(2) states that EPA may select “a representative calendar year” to serve as the company baseline for HCFCs. In the 2003-2009 Rule, EPA concluded that because the entities eligible for allowances had differing production and import histories, no single year was representative for all companies. Therefore, EPA assigned an individual consumption baseline year to each company by selecting its highest ODP-weighted consumption year from 1994 through 1997. EPA assigned individual production baseline years in the same manner. EPA also provided for new entrants that began importing after 1997 but before April 5, 1999, the date the advanced notice of proposed rulemaking (ANPRM) was published. EPA took this action to ensure that small businesses that might not have been aware of the impending rulemaking would be able to continue in the HCFC market.

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In the United States, an allowance is the unit of measure that controls production and consumption of ODS. EPA allocates calendar-year allowances equal to a percentage of the baseline—they are valid from January 1 to December 31 of that control period. A calendar-year allowance represents the privilege granted to a company to produce or import one kilogram (not ODP-weighted) of the specific substance. “Production allowance” and “consumption allowance” are defined at 40 CFR 82.3. To produce an HCFC for which EPA has issued allowances, an allowance holder must expend both production and consumption allowances. To import an HCFC for which EPA has issued allowances, an allowance holder must expend only consumption allowances. An allowance holder exporting HCFCs for which it has expended consumption allowances may request a refund of those consumption allowances by submitting proper documentation and receiving approval from EPA.

The 2003-2009 Rule set production and consumption baselines for the 2003-2009 regulatory period, using each company’s highest “production year” or “consumption year.” The 2003-2009 Rule prohibited production and import of those HCFCs that were subject to the allowance system without the appropriate allowances (40 CFR 82.15(a),(b)). EPA set the maximum production and consumption of each HCFC by issuing allowances that are valid for a single calendar year, equal to a certain percentage of each company’s baseline.³ It completely phased out the production and import of HCFC-141b by granting zero percent of baseline for production and consumption in the table at 40 CFR 82.16. EPA created a petition process to

³ The process for assigning consumption baseline percentages works as follows: first, all the company-specific baselines listed in the tables at 40 CFR 82.19 are added to determine the aggregate consumption baseline. Second, EPA determines how many consumption allowances to allocate for a given year and divides that amount by the aggregate baseline. The resulting percentage listed in the table at section 82.16 becomes what each company is allowed to consume in a given control period. For example, a company with 100,000 kg of HCFC-22 consumption baseline allowances would multiply that number by the percentage allowed in a given year (for example, 25 percent) to determine its calendar-year consumption allowance is 25,000 kg. EPA uses the same process to determine production baseline percentages.

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allow applicants to request small amounts of HCFC-141b beyond the phaseout. For production and consumption of HCFC-22 and HCFC-142b in 2003 through 2009, EPA allocated allowances at 100 percent of baseline. The complete phaseout of HCFC-141b, the allocations for HCFC-22 and HCFC-142b, combined with projections for consumption of all other HCFCs, remained below the 2004 cap of 65 percent of the United States baseline.

Since EPA is implementing the phaseout on a chemical-by-chemical basis, it allocates and tracks production and consumption allowances on a kilogram basis for each chemical. Upon EPA approval, an allowance holder may transfer calendar-year allowances of one type of HCFC for calendar-year allowances of another type of HCFC, with transactions weighted according to the ODP of the chemicals involved. Pursuant to section 607 of the CAA, EPA applies an offset to each HCFC transfer by deducting 0.1 percent from the transferor's allowance balance. The offset benefits the ozone layer since it "results in greater total reductions in the production in each year of . . . class II substances than would occur in that year in the absence of such transactions" (see CAA section 607(a)).

The 2003-2009 Rule announced that EPA would allocate allowances for the 2010-2014 regulatory period in a subsequent action and that those allowances would be lower than for 2003-2009, consistent with the next stepwise reduction for HCFCs under the Montreal Protocol. EPA subsequently monitored the market to estimate servicing needs and market adjustments in the use of HCFCs, including HCFCs for which EPA had not established baselines in the 2003-2009 Rule. In the 2010-2014 Rule (74 FR 66412, December 15, 2009), EPA issued production and import allowances for HCFC-22, HCFC-142b, and other HCFCs not previously included in the allowance system, for the 2010-2014 control periods.

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In the 2010-2014 Rule, EPA estimated the need for HCFC-22 during the 2010-2014 regulatory period and the percentage of that need for which it was appropriate to allocate allowances. EPA decided that the percentage of the estimated need allocated in the form of allowances should not remain constant from year to year, but rather should decline on an annual basis. For 2010, EPA allocated HCFC-22 allowances equal to 80 percent of the estimated need, concluding that reused, recycled, and reclaimed material could meet the remaining 20 percent. The percentage of estimated need for which there was no allocation, and that would therefore need to be met through recycling and reclamation, rose from 20 percent in 2010 to 29 percent in 2014. The intent of this approach was to foster reclamation and to ensure that the United States could meet the 2015 stepdown under the Montreal Protocol.

However, part of the 2010-2014 Rule was vacated in an August 27, 2010, decision issued by the United States Court of Appeals for the District of Columbia Circuit (Court) in *Arkema v. EPA* (618 F.3d 1, D.C. Cir. 2010). Certain allowance holders affected by the 2010-2014 Rule contended that the rule was impermissibly retroactive because in setting the baselines for the new regulatory period, EPA did not take into account certain inter-pollutant baseline transfers that petitioners had performed during the prior regulatory period. Accounting for these transfers in the 2010-2014 Rule and applying the same methodology would have resulted in different baselines and calendar-year allowances for HCFC-22 and HCFC-142b.

The Court agreed with petitioners that “the [2010-2014] Final Rule unacceptably alters transactions the EPA approved under the 2003 Rule,” (*Arkema v. EPA*, 618 F.3d at 3). The Court vacated the rule in part, “insofar as it operates retroactively,” and remanded to EPA “for prompt resolution,” (618 F.3d at 10). EPA’s petition for rehearing was denied on January 21, 2011. EPA addressed the Court’s partial vacatur as it related to 2011 in an August 5, 2011, interim final rule,

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“Protection of Stratospheric Ozone: Adjustments to the Allowance System for Controlling HCFC Production, Import, and Export,” (76 FR 47451, August 5, 2011, “2011 Interim Final Rule”). In that rule, EPA established new baselines that (1) credited the 2008 inter-pollutant trades at issue in *Arkema v. EPA* based on the Court’s decision; (2) reflected inter-company, single-pollutant baseline transfers that occurred since the 2010-2014 Rule was signed; (3) allocated HCFC-22 and HCFC-142b allowances for 2011; (4) clarified EPA’s policy on all future inter-pollutant transfers; and (5) updated company names. The HCFC-22 and HCFC-142b use restrictions and the allocation for other controlled HCFCs were not affected by the partial vacatur.

To complete its response to the Court’s decision, EPA published a final rule with the same name on April 3, 2013, allocating HCFC-142b and HCFC-22 allowances for 2012-2014 (78 FR 20004, “2012-2014 Rule”). That rule reduced HCFC-22 allowances in 2012-2014 by almost 30 percent relative to the 2010-2014 Rule in order to incentivize proper handling and recovery of HCFC-22 and encourage transition to non-ODS alternatives.

On December 24, 2013, EPA published a proposed rule that would issue allowances for HCFC-22, HCFC-142b, HCFC-123, and HCFC-124 for the 2015-2019 regulatory period (78 FR 78071, “2015-2019 Proposed Rule”). Today’s action finalizes the HCFC allowance allocations for those years based on the options presented in the 2015-2019 Proposed Rule and comments submitted to EPA. For more information on the history of the HCFC phaseout and applicable rulemakings, see: <http://www.epa.gov/ozone/title6/phaseout/classtwo.html>.

C. What Sections of the Clean Air Act Apply to This Rulemaking?

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Several sections of the CAA⁴ apply to this rulemaking. Section 602 states that EPA shall publish an initial list of class II substances, which is to include the HCFCs specified in the statute as well as their isomers. EPA's listing of class II substances appears at appendix B to 40 CFR part 82, subpart A.

Section 605 of the CAA phases out production and consumption and restricts the use of HCFCs in accordance with the schedule set forth in that section. As discussed in the 2010-2014 Rule (74 FR 66416), section 606 provides EPA authority to set a more stringent phaseout schedule based on (1) current scientific information that a more stringent schedule may be necessary to protect human health and the environment, (2) the availability of substitutes, or (3) to conform to any acceleration under the Montreal Protocol. EPA previously set a more stringent schedule than the section 605 schedule through a rule published December 10, 1993 (58 FR 65018). The 2010-2014 Rule made a further adjustment from the section 605 schedule based on the acceleration under the Montreal Protocol as agreed to at the Meeting of the Parties in September 2007. The more stringent schedule established in that rule was unaffected by the decision in *Arkema v. EPA* and is still in effect.

Section 608 of the CAA, titled National Recycling and Emission Reduction Program, requires EPA to establish standards and requirements for the use and disposal of class I and class II substances. Those requirements must reduce the use and emissions of controlled substances to the lowest achievable level, as well as maximize their recapture and recycling. Additionally, section 608(c) prohibits any person maintaining, servicing, repairing, or disposing of an appliance that contains refrigerant from knowingly venting, releasing, or disposing of that substance to the environment, regardless of whether the refrigerant is an ODS or a substitute.

⁴ The Clean Air Act provisions that address stratospheric ozone protection are codified at 42 USC §§ 7671-7671q.

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Substitutes are exempted from this prohibition only if EPA has determined that venting, releasing, or disposing of the substitute does not pose a threat to the environment. The full list of substitutes that are exempt from this prohibition can be found at 40 CFR section 82.154(a).

Section 611 of the CAA requires EPA to establish and implement labeling requirements for containers of, and products containing or manufactured with, class I or class II ODS. While containers of class II substances (HCFCs) already are subject to labeling requirements, products containing or manufactured with class II substances must be labeled beginning January 1, 2015. The specific requirements and existing regulation implementing those requirements are discussed in Section IV.A. of this preamble.

Finally, section 614 of the CAA describes the relationship of Title VI to the Montreal Protocol. Section 614(b) states: “In the case of conflict between any provision of this title and any provision of the Montreal Protocol, the more stringent provision shall govern.” Section 614 ensures that EPA regulations are in accordance with United States obligations under the Montreal Protocol.

III. Summary of This Final Action

This action amends the existing regulations to implement the next major milestone in the HCFC phaseout. As a party to the Montreal Protocol, the United States has agreed to decrease HCFC consumption and production levels to 10 percent of the U.S. baseline by 2015. In this rule, EPA is allocating HCFC allowances starting at approximately five percent of the U.S. consumption baseline in 2015, or half of the Montreal Protocol cap.

EPA is issuing allowances for four HCFCs, implementing a narrow *de minimis* exemption for use of existing inventory of HCFC-225ca/cb⁵ and HCFC-124, and is updating

⁵ Throughout this preamble, the term ‘HCFC-225ca/cb’ refers to either the HCFC-225ca or HCFC-225cb isomers, as well as blends containing both isomers.

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regulations to account for a recent change to the Clean Air Act. In addition, EPA is making minor changes to the regulations promulgated under section 608 of the Act. These final agency actions are summarized below:

- **HCFC-22:** EPA is finalizing the lowest proposed 5-year linear approach of HCFC-22 consumption allowances. The consumption allocation in 2015 is approximately 10,000 MT, decreasing by approximately 2,000 MT per year until it is phased out in 2020. EPA is also providing approximately 28,000 MT of HCFC-22 production allowances each year. Under existing regulations, HCFC-22 production and consumption are zero in 2020. The agency considered market information, comments, regulatory and statutory requirements and its long-standing policy objectives as it weighed the merits of the proposed approaches. The final consumption allocation meets the 2020 phaseout deadline, and should help achieve a smooth transition to more environmentally-friendly alternatives, while also providing regulatory certainty to consumers and industry.
- **HCFC-123:** EPA is finalizing its preferred consumption allocation of approximately 2,000 MT per year through 2019. EPA is also finalizing its proposal to align its regulations with the recent amendment to CAA section 605(a) and allow for continued use of HCFC-123 in nonresidential streaming fire suppression applications.
- **HCFC-124:** EPA is finalizing its preferred production and consumption allocation of 200 MT per year through 2019.
- **HCFC-142b:** EPA is finalizing its preferred production and consumption allocation of 35 MT in 2015, decreasing by 5 MT per year through 2019. Under existing regulations HCFC-142b allowances for production and consumption are zero in 2020.

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- **HCFC-225ca/cb:** EPA is allocating zero percent of the baseline for production and consumption of HCFC-225ca or HCFC-225cb effective January 1, 2015.
- **De minimis use exemption:** EPA is finalizing its proposed *de minimis* exemption allowing any person with HCFC-225ca/cb in inventory prior to January 1, 2015, to use that material as a solvent. EPA is also finalizing a *de minimis* exemption allowing any person with HCFC-124 in inventory prior to January 1, 2015, to use that material as a sterilant for biological indicators.
- **CAA Section 608 Reclamation Requirements:** EPA is finalizing its proposal (1) to require a reclaimer to notify EPA when there is a change in business management, location, or contact information and (2) to require disaggregated information for all reclaimed refrigerants as part of annual reporting to EPA. The agency is not finalizing its proposed incorporation by reference of AHRI 700-2012 at this time due to the ongoing review of the standard by ASHRAE and AHRI.

IV. Clean Air Act Requirements that Begin in 2015

A. What Are the Existing HCFC Product Labeling Requirements at 40 CFR Part 82 Subpart E?

Section 611 of the CAA requires EPA to establish and implement labeling requirements for containers of, and products containing or manufactured with, class I or class II ODS. In 1993, EPA published regulations on these labeling requirements (58 FR 8136, February 11, 1993, Labeling Rule), codified at 40 CFR part 82 subpart E. Currently, these requirements only apply to containers containing class I or II ODS and products containing or manufactured with class I ODS. Products containing or manufactured with class II substances will be subject to these requirements beginning on January 1, 2015.

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In 2015, containers containing, products containing, and products manufactured with a class I or class II substance must bear a product label stating: “Warning: Contains [or Manufactured with, if applicable] [insert name of class I or II substance], a substance which harms public health and environment by destroying ozone in the upper atmosphere” (40 CFR 82.106). The wording of the label is specified verbatim in CAA section 611.

EPA defines a “product containing” a class II substance as a product including, but not limited to, containers, vessels, or pieces of equipment, that physically holds a controlled substance at the point of sale to the ultimate consumer which remains within the product, (40 CFR 82.104). Two examples of a “product containing” a class II substance that would require a label are (1) portable fire extinguishers containing an HCFC and (2) appliances that incorporate closed-cell foam blown with an HCFC. Foams are plastics (such as polyurethane or polystyrene) that are manufactured using blowing agents to create bubbles or cells in the material's structure. Closed-cell foam physically holds blowing agent within the cells. While HCFCs are no longer used as blowing agents in the United States, they are used in other countries from which the United States may import products. In the case of portable fire extinguishers, the fire suppression agent is contained in a reservoir within the extinguisher and released by the user when needed.

The definition of a product “manufactured with” a class II substance is a product for which the manufacturer used a class II substance directly in that product’s manufacturing, but where the product itself does not contain more than trace quantities of the ODS at the point of introduction into interstate commerce. A product “manufactured with” a class II substance would include electronics cleaned with an HCFC solvent or open cell foam blown with an HCFC. Open cell foam is different from closed cell foam in that it was manufactured with a blowing agent, but no longer contains the blowing agent because the cells or bubbles in open cell foam are open to

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the surrounding environment. Since HCFCs are no longer used as foam blowing agents in the United States, and the Nonessential Products Ban prohibits the sale or distribution of open cell plastic foam products made with HCFCs (40 CFR 82.70(c)), EPA expects the requirement for a “manufactured with” label should not be relevant to most open cell foam products.

Final products that incorporate another product that was “manufactured with” a class I or class II ODS do not have to bear a label so long as the manufacturer of the final product is distinct from the manufacturer of the product “manufactured with” the ODS (40 CFR 82.116). By contrast, final products that incorporate “products containing” a class I or II ODS will require a warning label, even if the final product manufacturer purchases the “product containing” the ODS from another manufacturer or supplier (40 CFR 82.114).

1. Minor Modifications to Existing Regulatory Text

The agency proposed and is now finalizing three minor edits to 40 CFR subpart E to clarify the intent of the regulatory language with respect to class II substances. EPA received no adverse comments regarding these minor clarifying revisions.

The first two clarifications are to replace “class I substance” with “controlled substance.” While the emphasis in 1993 was on class I substances, EPA is now removing any ambiguity with respect to class II substances by reconciling inconsistent terminology, specifically at 82.110(c) and 82.112(d). The text of 40 CFR 82.110(c) clearly applies to both class I and class II products, so EPA is revising the title of this paragraph to make it consistent with the existing operative text.

Similarly, 82.112(d) includes the more general term “controlled substances” in the title, but not the existing operative text. Through today’s action, EPA is replacing “class I substance”

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with “controlled substance” to clarify that this narrow exemption to the labeling requirements also applies to class II products in the same way it applied to class I products.

Third, EPA proposed to correct a citation in 82.122(a)(1). The first sentence incorrectly refers to 82.106(b)(2) as the exemption for certain methyl chloroform uses; this exemption is actually provided for in 82.106(b)(4). EPA is revising the text to reference the correct paragraph. EPA also notes that this exemption ended May 15, 1994.

2. Comments on the Existing Labeling Requirements and EPA’s Response

EPA created a preliminary list of products that might be affected by these requirements in 2015. This list, along with guidance for manufacturers and importers of potentially affected products, is titled *Summary of HCFC Product Labeling Requirements & Potentially Affected Products* (Labeling Memo) and can be found in the docket for this rulemaking. EPA sought comment on whether this list is accurate and complete, and where products made with or containing HCFCs are manufactured. The agency sought comment on which products have mainly switched to non-ODS alternatives so it can continue to assist companies in determining whether the labeling requirements are likely to apply to their products. The agency also sought comment on whether any clarification to the regulations at 40 CFR subpart E (82.100-82.124) is needed to implement the existing labeling requirement for products containing or manufactured with class II substances. EPA received five comments regarding the existing labeling requirements implementing CAA section 611(c), specifically on the effectiveness and applicability of such requirements.

RMS of Georgia commented that the labeling requirements will not be an effective way to increase awareness and ensure compliance because EPA does not have an enforcement arm to handle complaints. The Alliance does not think the labeling requirements are beneficial, and

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encourages EPA to focus its enforcement efforts towards compliance with regulations promulgated under CAA section 608 (40 CFR subpart F). The Alliance also commented that it believes the list of products included in the docket is complete, and it does not support additional labeling of products. In contrast, Carrier commented that EPA should revise the labeling requirements to apply to dry-shipped HCFC-123 chillers and residential air conditioning condensing units, not just products containing or manufactured with HCFCs. American Pacific (AMPAC) believes fire extinguishers containing HCFC-123 should not be subject to labeling because the ODP of HCFC-123 is very low and it is used as a replacement to Halon 1211, which has a very high ODP. The commenter also noted that the list of products potentially subject to this requirement does include the HCFC Blend B nonresidential fire suppressant that it has manufactured since 1994.

The agency appreciates comments on the effectiveness of the labeling requirements. EPA takes enforcement of its regulations seriously, and notes that the comment that the agency “does not have an enforcement arm to handle complaints” is inaccurate. EPA has also made an effort to focus its outreach toward the industries most likely to be affected by the HCFC product labeling requirement. Applicability of this CAA requirement is to all class II products, which includes all products that contain or are manufactured with HCFC-123. The labeling requirements for “products containing” or “products manufactured with” class II substances in CAA section 611(c) apply January 1, 2015, without any action by the Administrator. The commenter asking for an exemption for HCFC-containing fire extinguishers did not explain how EPA could create an exemption, given that such products are clearly “products containing” class II substances. Similarly, the commenter requesting an extension of the labeling requirements did not explain how or under what authority EPA could extend those requirements to equipment that does not

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contain an HCFC when introduced into interstate commerce. In addition, EPA did not propose to take any such actions.

Finally, Honeywell commented on labeling requirements for closed cell polyurethane insulated refrigerated trailers and containers where the foam was blown with HCFC-141b. Honeywell suggests that EPA require, or at least offer guidance stating, that the warning label be applied to transactional paperwork as well as the actual trailer, container, or panels containing the HCFC-blown foam.

To the extent that these HCFC-141b trailers or containers are imported into the U.S. (and therefore introduced into interstate commerce), they would require a label. The existing labeling requirements allow flexibility in where the label may be placed, including on the bill of lading, supplemental printed material, or promotional printed material (see 40 CFR 82.108). However, the label must be placed where the person purchasing the HCFC-containing product (or product manufactured with HCFCs) is likely to read and understand the warning statement before purchasing the product. In the preamble to the rule that implemented the statutory labeling requirements (58 FR 8136, February 11, 1993), EPA explained that “the warning statement may appear on a display panel other than the [principal display panel] as long as that label can be readily seen and understood by the consumer at the time of purchase,” (58 FR 8152). EPA continues to communicate with and offer guidance to companies that must determine whether the HCFC labeling requirements apply to their products. More background on the labeling requirements, including a discussion of the labeling pass-through requirements, can be found in the 1993 Labeling Rule.

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B. What Actions Is EPA Taking Regarding the Use and Sales Restriction in Clean Air Act

Section 605(a)?

Starting January 1, 2015, section 605(a) of the Clean Air Act prohibits the use or introduction into interstate commerce of any class II substance that does not meet one of four exceptions. Specifically, use or introduction into interstate commerce is allowed only if (1) the substance has been used, recovered and recycled; (2) it is entirely transformed, except for trace quantities, in the production of other chemicals; (3) it is used as a refrigerant in appliances manufactured prior to 2020; or (4) it is listed as acceptable for use as a nonresidential fire suppression agent in accordance with CAA section 612(c).⁶ Section 612 is the statutory authority for EPA's Significant New Alternatives Policy (SNAP) program, under which the agency reviews information on the human health and environmental impacts of substitutes for class I and class II substances in certain end-uses and lists those substitutes as acceptable, acceptable subject to use conditions, acceptable subject to narrowed use limits, or unacceptable (see 40 CFR subpart G).

In the 2010-2014 Rule (74 FR 66412), EPA used its authority under section 606 to accelerate the section 605(a) restrictions on use and introduction into interstate commerce for HCFC-22 and HCFC-142b⁷ to January 1, 2010, five years earlier than the date specified in section 605(a). Effective January 1, 2010, EPA prohibited the use of virgin HCFC-22 and HCFC-142b to manufacture or service new air-conditioning and refrigeration appliances. In a separate rule, under the authority provided in section 615 of the CAA, EPA also prohibited the

⁶ The fourth exception in this list is a recent change to the Clean Air Act, which was included in the National Defense Authorization Act for Fiscal Year 2012 [112th Congress, H.R. 1540, Title III, Section 320, *Fire Suppression Agents*].

⁷ EPA also accelerated the restrictions for HCFC-141b in the same rulemaking; however, HCFC-141b is not discussed further in this section because it is not used for refrigeration purposes.

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sale and distribution of appliances and appliance components pre-charged with either virgin or used, recovered, and recycled HCFC-22 and HCFC-142b (74 FR 66450). For all other HCFCs, including those for which EPA has not historically issued allowances, the CAA section 605(a) prohibitions and exceptions apply as of January 1, 2015. All HCFCs other than HCFC-22 and HCFC-142b may continue to be used and sold as *refrigerants*, but only for use in appliances manufactured before 2020.

EPA believes the term “use” is ambiguous in the context of section 605(a) with respect to potential categories of use that Congress did not directly address. Historically, in the context of section 605, EPA has focused on use of refrigerants to manufacture and service appliances and the section 605(a)(3) exception for servicing existing equipment. In 1993, EPA took the section 605(a) use restrictions into account in establishing the HCFC chemical-by-chemical phaseout. The 1993 Proposed Rule (58 FR 15014, March 18, 1993) discusses the acceleration of the use restriction for HCFC-22 and HCFC-142b from the standpoint of when it would be technologically feasible to end the use of these two chemicals in new refrigeration and air-conditioning equipment. In that rulemaking, EPA did not explore how to interpret or apply the term “use” in other circumstances. EPA considered various interpretations of that term in developing the 2010-2014 Rule but again focused on refrigerants. In the 2008 Proposed Rule (73 FR 78680, December 23, 2008), EPA noted that the three statutory exceptions that existed at that time “inform EPA’s understanding of the term ‘use’” (73 FR 78698). The preamble to the 2010-2014 Rule states: “With regard to HCFCs used as refrigerants, EPA interprets the term ‘use’ to mean initially charging as well as maintaining and servicing refrigeration equipment” (74 FR 66437). In regard to non-refrigerant uses, EPA addressed two manufacturing uses of HCFC-22 (manufacture of sterilant blends for medical equipment and manufacture of thermostatic

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expansion valves); EPA also concluded that section 605(a) would ban the primary pre-2010 use of HCFC-142b (foam-blowing). At that time, however, EPA was not yet implementing section 605(a) with respect to other HCFCs and did not fully explore what “use” might mean in the context of non-refrigerants.

In the development of the 2010-2014 Rule, EPA did consider whether section 605(a) applies to the operation of products containing HCFCs. With regard to refrigeration equipment, EPA concluded: “the section 605(a) ‘use’ ban does not apply to a consumer’s operation of equipment containing HCFCs” (74 FR 66438). The agency’s conclusion was partially based on the third exemption to 605(a), for class II substances that are used as refrigerants in appliances manufactured before a specified date. This exemption indicated “that Congress intended to permit the continued use of previously manufactured appliances.” EPA also stated that for “products containing HCFCs for non-refrigerant uses . . . EPA interprets the term ‘use’ as relating to the manufacture (and where applicable, the service) of those products, not the utilization of those products in the hands of the end user” (74 FR 66437).

EPA is not revisiting its interpretation of section 605(a) with respect to how it interprets “use” for products containing HCFCs. For purposes of implementing the 2015 use restriction in section 605(a), “use” of a controlled substance includes the manufacture of products that contain or are made with HCFCs; however, it would not include use of existing products containing HCFCs. (Products that contain class II controlled substances other than HCFC-22, HCFC-142b and HCFC-141b may still be manufactured before January 1, 2015). As EPA explains in the preamble to the 2010-2014 Rule, EPA interprets section 605(a) as prohibiting the use of *substances*, not the use of products. The statutory language does not directly address whether use of a product containing controlled substances might constitute a prohibited use of the substance.

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However, consistent with its earlier statements, EPA does not treat the use of a product containing HCFCs as use of the HCFC.

The agency has a long history of distinguishing between products and substances in its ODS phaseout regulations. The definition of controlled substances in 40 CFR part 82 subpart A excludes any such substance or mixture that is in a manufactured product other than a container used for the transportation or storage of the substance or mixture. EPA distinguishes between bulk containers of HCFCs and products containing HCFCs. The subpart A definition of controlled substance clarifies that if a substance needs to be transferred from a bulk container to a piece of equipment or another container to realize its intended use, it will be treated as a “substance.” Examples of bulk containers include jugs, drums, and cylinders.

EPA refers readers to the preamble of the 2010-2014 Rule for two other clarifications on how EPA interprets the term “use” in the context of section 605(a). First, the agency clarified how the Nonessential Products Ban (CAA section 610) and the HCFC use restriction (CAA section 605(a)) should be interpreted together: “By prohibiting use and introduction into interstate commerce of HCFCs as bulk substances, section 605(a) effectively prohibits the continued manufacture of any products containing HCFCs (which qualifies as a type of ‘use’) unless specifically exempted in that section.” EPA explained that while the section 610(a) Nonessential Products Ban exempts certain products, these exempted products may not be manufactured after 2014 due to the HCFC use restrictions in section 605(a). EPA clarified that “such products are prohibited from continued manufacture, unless manufactured with recovered HCFCs” (74 FR 66439). Second, in the preamble to the 2010-2014 Rule the agency clarified that “EPA does not interpret ‘use’ [in the context of section 605] to include destruction, recovery for

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disposal, discharge consistent with all other regulatory requirements, or other similar actions where the substance is part of a disposal chain” (74 FR 66439).

Because the use prohibition will apply to a variety of sectors and circumstances beginning in 2015, EPA believes it may be helpful to define “use” in the phaseout regulations (40 CFR part 82 subpart A). There is currently a definition of “use” in the regulations for the SNAP program (40 CFR part 82 subpart G), under which “use” means any use of a substitute for a class I or class II substance, including but not limited to, use in a manufacturing process or product, in consumption by the end-user, or in intermediate uses, such as formulation or packaging for other subsequent uses (40 CFR 82.172). EPA proposed a related definition for purposes of the section 605(a) use prohibition. Under this proposed definition, use of a class II controlled substance, for the purposes of section 82.15, would include use in a manufacturing process, use in manufacturing a product, intermediate uses such as formulation or packaging for other subsequent uses, and use in maintaining, servicing, or repairing an appliance or other piece of equipment. It would also include use of that controlled substance when it is removed from a storage or transportation vessel. However, the definition of “use” would not include use of a manufactured product containing a controlled substance. The primary difference between the proposed definition under section 605(a) and the SNAP regulations’ definition is that the SNAP definition includes use by the consumer of a product containing ODS. This difference reflects EPA’s interpretation of the section 605(a) use restriction as set forth in the preamble to the 2010-2014 Rule.

EPA received three comments on its proposed definition of “use.” Two commenters support adopting a formal definition as proposed. One commenter opposes EPA’s interpretation, particularly as it relates to the proposed HCFC-225ca/cb exemption for existing inventory. The

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commenter in opposition provides no justification for their opposition to EPA's definition of use, so EPA believes this comment is in fact a comment in opposition to the *de minimis* exemption for existing inventory of HCFC-225ca/cb, which is discussed in the following section (IV.B.1). In light of the comments received, EPA is finalizing its proposed definition of "use" at 40 CFR 82.3.

1. Treatment of Existing Inventory of HCFC-225ca and HCFC-225cb for Solvent Uses

Numerous stakeholders have asked what they will be able to do with inventory of HCFC-225ca, HCFC-225cb, and mixtures thereof (abbreviated as "HCFC-225ca/cb" for the remainder of the preamble) that exists as of January 1, 2015. To EPA's knowledge, HCFC-225ca/cb is used only as a solvent, primarily for precision cleaning in the aerospace and electronics industries. As explained above, the section 605(a) use ban does not apply to the use of products that contain class II controlled substances. However, some substances, including HCFC-225ca/cb, may be used directly to clean equipment or to manufacture a product without first being put into a manufactured product themselves. For example, a person may take HCFC-225ca/cb from a bulk container, in a mixture or neat, and either add it to a vapor degreaser or pour it on a hand wipe to clean a piece of equipment. In those circumstances, the substance itself—not a product containing the substance—is being used. This differs from the use of products that contain HCFC-225ca/cb, such as aerosol cans or pre-soaked wipes. In general, EPA proposed to interpret the section 605(a) use ban to apply to use when the substance is removed from a container used for transportation or storage. The agency did not receive any adverse comment on EPA's proposed interpretation and is therefore finalizing this interpretation.

However, EPA believes the use of HCFC-225ca/cb entered into inventory prior to January 1, 2015, by persons that use these substances as solvents may fairly be considered *de*

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minimis. Thus, for reasons discussed below, the agency is finalizing its proposed *de minimis* exemption to the use prohibition in section 605(a), which allows any person with HCFC-225ca/cb in inventory prior to January 1, 2015, to use that material as a solvent.⁸ “Person” is defined in 40 CFR 82.3 to include corporations and Federal agencies, as well as their employees and agents. Agents include contractors and subcontractors, as well as other entities performing a service or task on behalf of the corporation or Federal agency. One of those tasks could be storing and/or using HCFC-225ca/cb that was in existing inventory prior to January 1, 2015.

EPA did not propose an exemption to the prohibition on introduction into interstate commerce, nor did it propose to change the existing regulatory phaseout date for production and import of HCFC-225ca/cb. Effective January 1, 2015, a person holding HCFC-225ca/cb in inventory may not transfer or sell it to another person (unless for destruction), nor is EPA issuing any allowances to produce or import new HCFC-225ca/cb.

Additionally, neither companies that manufacture products for their own use, nor companies that manufacture products for sale to others are allowed to manufacture products containing virgin HCFC-225ca/cb, as that is a prohibited use of the substance. A person may sell any products containing HCFC-225ca/cb that had been manufactured and entered into initial inventory prior to January 1, 2015, since at that point they would be “products” and not “class II controlled substances.” A product is considered to be a part of “initial inventory” at the point where the original product has completed its manufacturing process and is ready for sale by the product manufacturer. For more discussion of EPA’s interpretation of the term “initial inventory,” see the 1993 Nonessential Products Ban. Also, for purposes of section 605(a),

⁸ Since the section 605(a) prohibition only limits the use of virgin or unused HCFC-225ca/cb solvent, used, recovered, and recycled solvent can still be used for precision cleaning and manufacturing products after January 1, 2015.

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manufacturers may continue to use HCFC-225ca/cb to make both products “manufactured with” and products “containing” HCFC-225ca/cb as of January 1, 2015, so long as the HCFC-225ca/cb has been used, recovered and recycled. Labeling requirements for these products manufactured with either virgin or used, recovered, and recycled HCFC-225ca/cb will apply beginning January 1, 2015 (see Section IV.A. of this preamble). Manufacturers should also ensure that they are in compliance with the Nonessential Products Ban and with SNAP regulations.

EPA received seven comments on its proposed *de minimis* exemption to the use restriction in section 605(a) for entities that use HCFC-225ca/cb as solvents and have HCFC-225ca/cb in their inventory prior to January 1, 2015. Six commenters supported the exemption because it would provide valuable flexibility while they evaluate and qualify alternatives that can satisfy specialized applications. Charles Stark Draper Laboratory (CSDL) and AGC Chemicals both note that EPA has adequate authority in the CAA to issue this exemption. Three commenters also noted that the exemption would help industry avoid costs associated with disposing of HCFC-225ca/cb already held in inventory.

One commenter, AGC Chemicals, stated that EPA should clarify that “owners” of HCFC-225ca/cb can use their inventory in any of their affiliated organizations, allowing transfer among facilities in different locations. In the preceding text describing the exemption, EPA has attempted to clarify that the term “person” applies to subcontractors and other agents working on the person’s behalf. Transferring a chemical between different facilities of the same person within the United States would be allowed by this exemption.

Another commenter supports EPA’s proposed *de minimis* exemption for HCFC-225ca/cb inventory prior to January 1, 2015, because at that point the inventory would be a product and not a class II controlled substances. EPA would like to clarify that bulk HCFC-225ca/cb

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produced or imported before 2015 is not a product. As explained in this section, bulk HCFC-225ca/cb in existing inventory is still a controlled class II substance. As such, EPA is providing an exemption to the use prohibition for class II controlled substances and is not reclassifying HCFC-225ca/cb as a product merely because time has passed.

One commenter, NRDC, opposes the exemption and believes that section 605(a) is intended to be interpreted strictly. According to NRDC, justifying the *de minimis* argument based on the limited quantities of this chemical in use is inappropriate and unjustified. NRDC further asserts that EPA's statutory interpretation has the potential to cause harm in future years of the phaseout if small amounts of a chemical were made available for "as long as needed" and that such an exemption would be contrary to the goals of Title VI of the Clean Air Act and the Montreal Protocol.

As explained in the proposal and in this rule, EPA is not allowing for new production or new import of virgin HCFC-225ca/cb, but only for the continued use of a small amount of material that was previously produced and/or imported using the appropriate allowances prior to 2015. The production and consumption allocation for HCFC-225ca/cb is zero starting in 2015. EPA sees the *de minimis* exemption as consistent with how EPA has treated other ODS, and with the goals of Title VI. For example, production and consumption of CFCs were phased out in 1996, yet amounts in inventory continued to be used. Additionally, there will still be continued use of HCFC-22 after EPA phases out production and import of HCFC-22 in 2020. In general, the term "phaseout" applies to the decrease and eventual elimination of production and import of a virgin substance, not to the use of a particular substance. While section 605(a) limits the use of virgin HCFCs starting in 2015, use of class I substances and certain uses of particular class II substances will continue without undermining the overarching goals of CAA Title VI.

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As stated in the proposed rule, EPA believes it has implied authority to create a *de minimis* exemption from the section 605(a) use restriction. The United States Court of Appeals for the District of Columbia Circuit has recognized that “[u]nless Congress has been extraordinarily rigid, there is likely a basis for an implication of *de minimis* authority to provide exemption when the burdens of regulation yield a gain of trivial or no value.” *Alabama Power Co. v. Costle*, 636 F.2d 323, 360-61 (D.C. Cir. 1980). In *Alabama Power*, the Court held that “[c]ategorical exemptions from statutory commands may...be permissible as an exercise of agency power, inherent in most statutory schemes, to overlook circumstances that in context may fairly be considered *de minimis*. It is commonplace, of course, that the law does not concern itself with trifling matters, and this principle has often found application in the administrative context. Courts should be reluctant to apply the literal terms of a statute to mandate pointless expenditures of effort.” *Id.* (internal citations omitted).

In an earlier case cited by the court in *Alabama Power*, the court described the doctrine as follows: “The ‘*de minimis*’ doctrine that was developed to prevent trivial items from draining the time of the courts has room for sound application to administration by the Government of its regulatory programs...The ability, which we describe here, to exempt *de minimis* situations from a statutory command is not an ability to depart from the statute, but rather a tool to be used in implementing the legislative design.” *District of Columbia v. Orleans*, 406 F.2d 957, 959 (1968).

In this respect, the *Alabama Power* opinion observed in a footnote that the *de minimis* principle “is a cousin of the doctrine that, notwithstanding the ‘plain meaning’ of a statute, a court must look beyond the words to the purpose of the act where its literal terms lead to ‘absurd or futile results.’ ” *Id.* at 360 n. 89 (citations omitted). To apply an exclusion based on the *de minimis* doctrine, “the agency will bear the burden of making the required showing” that a matter

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is truly *de minimis* which naturally will turn on the assessment of particular circumstances. *Id.*

The *Alabama Power* opinion concluded that "most regulatory statutes, including the CAA, permit such agency showings in appropriate cases." *Id.*

A notable limitation on the use of the *de minimis* doctrine is that it does not authorize the agency to exclude something on the basis of a cost-benefit analysis. As the court explained, this "implied authority is not available for a situation where the regulatory function does provide benefits, in the sense of furthering the regulatory objectives, but the agency concludes that the acknowledged benefits are exceeded by the costs." *Id.* The court held that any "implied authority to make cost-benefit decisions must be based not on a general doctrine but on a fair reading of the specific statute, its aims and legislative history." *Id.*

Several courts have recognized *de minimis* exceptions (1) so long as they are not contrary to the express terms of the statute⁹ and (2) the agency's interpretation of the exception is a permissible reading of the statute. See e.g., *Ober v. Whitman*, 243 F.3d 1190 (9th Cir. 2001); see also *Ohio v. EPA*, 997 F.2d 1520 (D.C. Cir. 1993).

A *de minimis* exemption is permissible in this situation for several reasons. First, section 605(a) is not extraordinarily rigid. Second, the use prohibition in section 605(a) is ambiguous with respect to potential categories of use that Congress did not directly address. Third, banning the use of HCFC solvent inventory held by the end-user would not advance the statutory purpose of Title VI of the Clean Air Act. These arguments are discussed in more detail in the following paragraphs.

The purpose of Title VI of the Clean Air Act, as its title suggests, is stratospheric ozone

⁹ In *Sierra Club v. EPA*, 705 F.3d 458 (D.C. Cir. 2013), the D.C. Circuit held that EPA had no *de minimis* authority to create an exemption from the preconstruction monitoring requirement in § 165(e)(2) of the CAA. "Whether we call preconstruction monitoring a 'plain requirement' or a requirement mandated by an 'extraordinarily rigid' statute, the result is the same: the EPA has no *de minimis* authority to exempt the requirement." *Id.* at 468.

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protection. Title VI can be categorized into three principal areas: the phaseout of production and import of ozone depleting substances (sections 602-607); reduction in emissions of these substances via various means such as required servicing practices, restrictions on sale and distribution of products, and consumer education (sections 608-611); and the transition to alternatives that reduce overall risk to human health and the environment compared to other alternatives (section 612).

Section 605 specifically addresses the phaseout of production and consumption of class II controlled substances. Section 604 applies to the phaseout of production and consumption of class I substances. There are notable differences between the two phaseouts. The phaseout under section 604 works much more quickly than the phaseout under section 605. In addition, the section 604 phaseout applies much earlier than the section 605 phaseout. Section 604 required the first reductions in class I substances in 1992, followed by a series of stepdowns culminating in the complete phaseout of nearly all class I substances by 2000. For class II substances, section 605 freezes production and consumption in 2015, with the complete phaseout not occurring until 2030.¹⁰ Two principal factors drive the distinction in phaseout schedules. First, class I substances have much higher ODPs relative to class II substances.¹¹ Second, class II substances were recognized as and often developed expressly to be important transitional chemicals, beneficial in phasing out class I substances as quickly as possible. During the development of the 1990 Clean Air Act Amendments, Congress heard testimony on the need to phase out HCFCs as well as class I substances. Senator Chaffee acknowledged that “one difficulty, however, is the fact that achieving the goal of eliminating the potent long-lived CFCs as rapidly as possible is, to some

¹⁰ Through rulemakings, EPA accelerated the statutory deadlines in sections 604 and 605, in accordance with the requirements in section 606. See 57 FR 3354 and 58 FR 65013.

¹¹ For example, all CFCs have an ODP of 0.6 or greater, with most having an ODP of 1.0, whereas the HCFC with the highest ODP is HCFC-141b, which has an ODP of 0.11.

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extent, dependent on the continued availability of HCFCs as intermediate substitutes pending development of other, safe, non-ozone depleting substances or processes.” (A Legislative History of the Clean Air Act Amendments of 1990, volume 1, p. 5210 (Senate debate)).

It is clear that Congress’ intent was to phase out production and import of class I substances “as rapidly as possible,” and certainly more rapidly than class II substances given the difference in the start and duration of the two phaseout schedules; however, nowhere in section 604 does Congress restrict the *use* of class I substances. Instead, Congress phases out the *production* and *import* for domestic use, and allows for certain exemptions to the phaseout for specific uses (see, e.g., section 604 (f) and (g).) Given the comparable titles of sections 604 and 605 and the overarching goal of phasing out both class I and class II ODS¹², Congress likely intended that the “use” restriction, which is unique to section 605, should be interpreted in a manner that furthers the phaseout of production and import of HCFCs while recognizing the role of HCFCs as transitional substances.

Congress’ overall approach to the class II phaseout is generally less rigid than its approach to the class I phaseout, considering the longer timeframes and the presence of only one intermediate reduction step (see section 605(b)). Given this context, EPA does not view section 605(a) as “extraordinarily rigid.” In addition, section 605(a) provides an explicit exception for class II substances that have been “used, recovered, and recycled.” Thus, Congress clearly did not envision that all HCFC use in applications not specifically exempted would come to a halt by 2015. Indeed, end-users of HCFC-225ca/cb could avail themselves of this exception by putting their entire existing inventory of HCFC-225ca/cb into their equipment before January 1, 2015.

¹² “The centerpiece of the stratospheric ozone protection program established by this title is the phaseout of production and consumption of all ozone depleting substances.” Clean Air Act Amendments—Conference Report (Senate - October 27, 1990) (136 Cong. Rec. S16946).

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For example, an end-user could use its entire inventory of virgin HCFC-225ca/cb in its vapor degreaser, recover the HCFC-225ca/cb from the degreaser, and then recycle it for reuse in 2015 and beyond. In other instances, an end-user could take virgin HCFC-225ca/cb, apply it to a surface via the typical application method such that the surface is cleaned as intended, at which point any recovered HCFC-225ca/cb would be rendered “used.” EPA does not wish to encourage this approach to meeting section 605(a) requirements, which would do nothing to advance the statutory purpose of stratospheric ozone protection. Rather than insist on an inflexible reading of the statute that may create “absurd or futile results,” EPA believes the better option is to allow end-users to continue to use virgin HCFC-225ca/cb inventory that was manufactured and is in their possession prior to 2015.

EPA views section 605(a) as ambiguous with respect to potential categories of use that Congress did not explicitly address. Section 605(a) explicitly addresses refrigerant uses of HCFCs but is silent with respect to solvents. At the time the 1990 Clean Air Act Amendments were written, HCFCs were used predominantly as refrigerants and much consideration was given to this use in the legislative history. HCFC solvent uses, on the other hand, were not considered by Congress in the context of the class II phaseout, because they did not exist. At that time, two class I substances, CFC-113 and methyl chloroform, were used as solvents. Far from expecting an early transition, Congress allowed production and import of methyl chloroform until 2002, two years after the phaseout date for most class I substances. In addition, in section 604(d)(1), Congress specifically allowed for limited exemptions to the production and import phaseout for methyl chloroform for “use in essential applications.” It was not until 1995 that the SNAP program listed HCFC-225ca/cb as acceptable subject to use conditions in electronics cleaning and precision cleaning (see 60 FR 31092, June 13, 1995). HCFC-225ca/cb was listed as

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acceptable in metals cleaning as recently as 2002 (see 67 FR 77927, December 20, 2002). In all three of these end-uses, HCFC-225ca/cb, which has an ODP of 0.025/0.033, is a substitute for CFC-113 and methyl chloroform, which have ODPs of 0.8 and 0.1, respectively. While HCFC-225ca/cb solvents have acted since 1995 as transitional substances between class I ODS and non-ODS substitutes for certain niche needs, there is no evidence that Congress anticipated in 1990 that any HCFCs would be used as solvents. Thus, Congress did not have the opportunity to consider whether to apply the section 605(a) use restriction to HCFC-225ca/cb solvents.

EPA does not believe that it would advance the goals of Title VI to prohibit persons that use HCFC-225ca/cb as a solvent to clean their equipment or to clean components of products they manufacture—resulting in products “manufactured with” these HCFCs—from using their existing inventory of HCFC-225ca/cb. As discussed above, any person could avoid such a prohibition by rendering all their inventory “used” in advance of the effective date. From the perspective of potential ozone destruction, there is little or no difference in this instance whether the person uses *de minimis* quantities already on site at the end of 2014 or after January 1, 2015.

EPA believes a *de minimis* exemption is appropriate for the reasons provided, and also because the quantities involved are extremely limited. This is a small niche use and EPA is only proposing to exempt HCFC-225ca/cb held in inventory by persons that use these substances as a solvent. Allowances act as a ceiling on the quantities that can be produced or imported and thus comprise pre-2015 inventory. The annual allocation of allowances for HCFC-225ca/cb from 2010-2014 has been only 20.7 ODP-weighted MT per year. Recent data showing HCFC-225ca/cb consumption has been substantially less than the allocation, further decreasing the absolute maximum amount that could remain in inventories as of 2015, when production and import are prohibited.

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EPA also considered its past use of *de minimis* authority under Title VI of the Clean Air Act. The agency is modeling this exemption to section 605(a) on the *de minimis* exemption to the Nonessential Products Ban for class II substances (CAA section 610(c) and (d)). In the 1993 Nonessential Products Rule, EPA exempted products manufactured with or containing HCFCs from the ban if they were placed in initial inventory by December 27, 1993, which was 90 days after the proposed rule published and four days prior to the statutory ban on sale and distribution in interstate commerce (58 FR 50464, September 27, 1993 and 58 FR 69638, December 30, 1993). EPA adopted this narrow “grandfather” exception for existing inventories based on a *de minimis* rationale: “The crux of EPA’s reasoning for providing any exemption for existing inventories was that emissions from products already in existence were *de minimis*” (58 FR 69660). EPA believes that emissions from pre-2015 existing inventories of HCFC-225ca/cb would also be *de minimis*.

As discussed, EPA believes it has sufficient authority to adopt a *de minimis* exemption to the section 605(a) use prohibition for use of HCFC-225ca/cb held in inventory by persons using these substances as solvents. EPA has also considered policy aspects of an exemption. In the 1993 Nonessential Products Rule, EPA identified various reasons for exempting existing inventory. One policy goal was to relieve a potentially onerous burden on small businesses because, absent a sell through provision, existing inventories would otherwise have to be liquidated (or in the case of the section 605(a) use restriction, intentionally used, recovered, and recycled prior to the effective date of the prohibition).

Another important consideration is that the nature of precision cleaning is such that the group of affected entities is small, but their needs are very specific. Those needs often include minimal to zero flammability as well as excellent solvency properties. If those needs are not met,

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human safety can be jeopardized. Prior to the proposal, EPA had heard from several entities that use HCFC-225ca/cb as solvents for cleaning existing equipment or for cleaning surfaces that are part of a newly-produced product that still have not found a suitable alternative to HCFC-225ca/cb. In some instances, they need more time to test alternatives to ensure that the chosen replacement has acceptable solvency, flammability, and usability characteristics. Also, in some areas of the United States, a number of Federal, state, and local regulations affect the choice of solvents. In particular, areas that do not meet the national ambient air quality standard for ground-level ozone may regulate solvents that are volatile organic compounds (VOCs) to reduce emissions that contribute to the formation of smog. HCFC-225ca and HCFC-225cb are exempt from the definition of VOC under CAA regulations (see 40 CFR 51.100(s)) addressing the development of State Implementation Plans (SIPs) to attain and maintain the national ambient air quality standards. Only a few SNAP-listed alternatives to HCFC-225ca/cb are exempt from the definition of VOC (e.g., *trans*-1-chloro-3,3,3-trifluoroprop-1-ene).

After taking into account public comments, as well as the legal and policy considerations above, EPA is finalizing its proposed *de minimis* exemption to the use restriction in CAA section 605(a) for entities that use HCFC-225ca/cb as solvents and that have HCFC-225ca/cb in their inventory prior to January 1, 2015. The exemption will appear at 40 CFR 82.15(g). The exemption does not pertain to manufacturers of products containing HCFC-225ca/cb, such as technical aerosol solvents, or to producers and importers of HCFC-225ca/cb. Any aerosol solvent product manufactured prior to January 1, 2015, could be sold and used after that date, since an aerosol spray can is a product, not a controlled substance. However, manufacture of the product or HCFC blends used in those products would be considered use of a controlled substance, and would be prohibited after January 1, 2015, unless the HCFC were used, recovered, and recycled.

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2. Treatment of Existing Inventory of HCFC-124 for Sterilant Uses

In the proposed rule, EPA also sought comment on whether there are other small, niche uses of HCFCs that Congress may not have contemplated in the 1990 CAA Amendments and for which a prohibition on continued use of existing inventory would yield trivial or no benefits in light of the statutory purpose. In the proposal, the agency stated that it might consider extending the proposed exemption to other such niche uses in the final rule.

EPA received one comment from Mesa Labs, requesting continued use of HCFC-124 already held in inventory as a sterilant for the manufacture and testing of biological indicators (BIs). BIs contain biological spores and are used in the pharmaceutical, medical device and healthcare markets to monitor sterilization cycles. In this case, the commenter manufactures BIs for use in monitoring ethylene oxide (EtO) sterilization cycles. Two sources of EtO currently available for use are 100 percent EtO and a blend called Oxyfume 2000 (which consists of 8.6 percent EtO and 91.4 percent HCFC-124). The commenter requests an exemption to the section 605(a) HCFC use restriction for their HCFC-124 inventory for the specific reasons listed below:

- (1) BIs in the commenter's stability program may need to be tested for up to two years after the production date of the BI (i.e. up until the expiration date). This is a regulatory compliance issue connected to the FDA and ISO 9001:2008 standards.¹³ Since initial resistance assessment of these BIs was conducted using the Oxyfume 2000 blend gas, the commenter cannot obtain relevant comparison data if subsequent testing is performed using 100 percent EtO as the source gas. Transitioning to a non-HCFC sterilant would

¹³ According to www.iso.org, ISO 9001:2008 "specifies requirements for a quality management system where an organization needs to demonstrate its ability to consistently provide product that meets customer and applicable statutory and regulatory requirements, and aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements."

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affect the commenter's ability to comply with the ISO standards as well as FDA expectations.

- (2) According to the ISO 11138-2 standard,¹⁴ the minimum acceptable resistance for a BI used for EtO monitoring is 2.5 minutes. This is achievable using the Oxyfume blend but not achievable using the 100 percent EtO source. The ISO 11138-2 standard has not yet been changed to reflect this difference. Therefore, the commenter would not be able to comply with the ISO resistance requirements using 100 percent EtO, which would affect the medical industry's ability to source suitable BIs.
- (3) The manufacturer of Oxyfume 2000 has stopped producing the material and will no longer accept unused material for destruction.
- (4) The company's existing supplies of Oxyfume 2000 are small (300-400 pounds) and will last for up to 2 years.

The commenter also stated that they are active on the Association for the Advancement of Medical Instrumentation (AAMI) BI Working Group. Efforts are underway to change the ISO 11138-2 standard to reflect appropriate resistance values associated with the use of 100 percent EtO as the sterilants source gas. However, changes to the ISO standard will likely take 18 – 24 months.

Prior to the December 2013 proposal, EPA spoke with the domestic manufacturer of Oxyfume 2000 and also with representatives from the Ethylene Oxide Sterilization Association (EOSA). Through these conversations, the agency confirmed that the medical sterilant industry

¹⁴ According to www.iso.org, ISO 11138-2:2006 "provides specific requirements for test organisms, suspensions, inoculated carriers, biological indicators and test methods intended for use in assessing the performance of sterilizers and sterilization processes employing ethylene oxide gas as the sterilizing agent, either as pure ethylene oxide gas or mixtures of this gas with diluent gases, at sterilizing temperatures within the range of 29 °C to 65 °C."

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was aware of the upcoming use prohibition and that sterilant users were in the process of, or had already transitioned to, non-ODS sterilants. However, EPA appreciates that the standards for the minimum acceptable resistance for a BI used for EtO monitoring are currently being revised and that revision may take up to two years to complete. Due to strict requirements for BI testing, it may not be feasible for BI manufacturers to transition to a non-ODS sterilant before January 1, 2015. Therefore, in developing this final rule, EPA considered whether to create a *de minimis* exemption for this use similar to the exemption being finalized for use of HCFC 225ca/cb. EPA believes a *de minimis* exemption for use of HCFC-124/EtO sterilant blends in existing inventory is permissible for several reasons. First, as described above, section 605(a) is not extraordinarily rigid. Second, as discussed, the use prohibition in section 605(a) is ambiguous with respect to potential categories of use that Congress did not directly address. There is no mention of sterilant uses of HCFCs in section 605(a). It is unlikely that Congress considered sterilant uses of HCFCs in developing the 1990 CAA Amendments. Estimates indicate that in 1989, CFC-12/EtO was used for over 95 percent of all sterilization in hospitals (59 FR 13044). HCFC-124 containing sterilants were listed as acceptable by SNAP in the March 1994 rule establishing the SNAP program (59 FR 13044), several years after the 1990 CAA Amendments. Following that action, use of an HCFC-124/EtO blend largely replaced sterilization with a CFC-12/EtO blend. Third, banning the use of HCFC sterilant inventory held by the end-user would not advance the statutory purpose as companies could render the material “used” prior to the 2015 use prohibition, and then be able to utilize the “used” material in 2015 and beyond.

Additionally, the quantities of HCFC-124 that are being exempted are extremely limited. This is a small niche use and EPA is only exempting HCFC-124 held in inventory prior to January 1, 2015. Allowances act as a ceiling on the quantities that can be produced or imported

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and thus comprise pre-2015 inventory. The annual allocation of allowances for HCFC-124 from 2010-2014 has been 66 ODP-weighted MT per year. Recent data showing HCFC-124 consumption has been less than the full allocation, further decreasing the absolute maximum amount that could remain in inventories as of 2015, when production and import are prohibited. Honeywell, the manufacture of the Oxyfume 2000 HCFC-124 sterilant blend, stopped producing this product as of November 1, 2013. The company also encouraged their customers to ship back unused material and has a website dedicated to informing customers about the use restriction that takes effect on January 1, 2015 (see <http://www.honeywell-sterilants.com/questions-and-answers/> or the PDF in the docket). It is likely that the remaining HCFC-124 inventory is very small, and is held by end-users with niche sterilization needs (e.g. testing the efficacy of BIs).

For the reasons discussed above, EPA is including in this final rule a limited use exemption for sterilants containing HCFC-124. EPA is not creating an exemption to the prohibition on introduction into interstate commerce. Similarly, EPA is not changing the existing regulatory phaseout date for production and import of HCFC-124 for use as a sterilant, nor is EPA issuing any allowances to produce or import new HCFC-124 for use as a sterilant. Effective January 1, 2015, a person holding HCFC-124 in inventory may not transfer or sell HCFC-124 to another person (unless for destruction or for use as a refrigerant). EPA is creating a *de minimis* exemption to the use restriction in CAA section 605(a) for entities that use HCFC-124 as a sterilant for manufacture and testing of biological indicators and that have HCFC-124 in their inventory prior to January 1, 2015. The exemption will appear at 40 CFR 82.15(g). The exemption does not pertain to manufacturers of products containing HCFC-124 (e.g., aerosol spray cans); however, a product manufactured prior to January 1, 2015, could be sold and used after that date, since an aerosol spray can is a product, not a controlled substance.

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3. Update to Regulations to Account for Recent Changes to Section 605(a)

In the National Defense Authorization Act (NDAA) for fiscal year 2012, Congress amended section 605(a) of the Clean Air Act to allow for continued use and introduction into interstate commerce of a class II substance that “is listed as acceptable for use as a fire suppression agent for nonresidential applications in accordance with section 612(c).”

Section 612 of the Clean Air Act requires EPA to develop a program for evaluating alternatives to ozone-depleting substances. EPA refers to this program as the Significant New Alternatives Policy (SNAP) program. Section 612(c) requires EPA to publish a list of the substitutes unacceptable for specific uses and to publish a corresponding list of substitutes acceptable for specific uses. The list of acceptable substitutes is found at www.epa.gov/ozone/snap/lists, and the lists of “unacceptable,” “acceptable subject to use conditions,” and “acceptable subject to narrowed use limits” substitutes are found in the appendices to subpart G of 40 CFR part 82.

HCFC-123, HCFC-124, and several blends containing an HCFC are currently listed as acceptable and acceptable subject to narrowed use limits as fire suppression agents, where the use limit restricts use to only nonresidential fire suppression. EPA assumes that Congress intended the statutory phrase “listed as acceptable for use” to include HCFCs listed as acceptable and acceptable subject to narrowed use limits. In light of the 2012 statutory revision, EPA proposed to update its regulations for use and introduction into interstate commerce of HCFCs (82.15(g)), as well as the regulations governing production and import (82.16). Specifically, the agency proposed amending 82.15(g)(4) to allow for use and introduction into interstate commerce of any class II controlled substance not governed by the acceleration of the use prohibition to 2010, when used as a fire suppression streaming agent listed as acceptable for use

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or acceptable subject to narrowed use limits for nonresidential applications. EPA believes this addition is necessary and appropriate, given Congress' addition to section 605(a).

Though section 605(a) pertains only to use and introduction into interstate commerce, EPA believes that allowing for continued HCFC production and import for nonresidential fire suppression uses is in accordance with Congressional intent. Section 605 does not establish a production phaseout date for any specific HCFC. EPA previously used its discretion to establish a regulatory phaseout date, which the agency is modifying in this action. This change has minimal effect on the overall allocation since the primary HCFC used for fire suppression, HCFC-123, has a low ODP, and the quantities used for fire suppression are small relative to the other uses of HCFCs.

In large part, the regulatory phaseout date for HCFCs used in fire suppression was driven by the section 605(a) limitations on use and introduction into interstate commerce of class II controlled substances, to which Congress has now created an exception. Therefore, EPA also proposed to amend 82.16(d), by allowing for HCFC production and import in the 2015-2019 regulatory period for use in nonresidential streaming fire suppression applications. To give practical effect to this proposed change, EPA proposed allocating consumption allowances for HCFC-123 for use as both a refrigerant and as a fire suppression agent. As discussed in section VI.D. of this preamble, EPA is finalizing its proposal to allocate the maximum allowed amount of HCFC-123 consumption allowances under section 605(b). This is 100 percent of the HCFC-123 baseline, which is still less than three percent of the Montreal Protocol cap for 2015-2019.

EPA is allowing production and import for fire suppression purposes for the 2015-2019 regulatory period only. Beginning January 1, 2020, Article 2F of the Montreal Protocol limits United States production and import of HCFCs to use only in servicing and repair of existing

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refrigeration and air conditioning equipment. Under section 614(b), where either the Montreal Protocol or Title VI is more stringent, the more stringent provision governs. To reflect this Montreal Protocol time limitation, EPA proposed adding language to 82.16(e) indicating the purposes for which production and import may continue in 2020 and beyond. Fire suppression was not included on the list.

The agency received three comments regarding its plans to update regulations to account for recent changes to section 605(a), all of which agreed with EPA's rationale and language regarding continued use of HCFCs as a fire suppression agent. One fire suppressant manufacturer, AMPAC, commented that the word "streaming" should be deleted from the proposed changes to section 82.15(g)(4) and 82.16(d), on the ground that limiting the exemption to streaming agents only is inconsistent with legislative intent and what is stated in section 320 of the 2012 NDAA.

EPA recognizes that the language included in section 320 of the 2012 NDAA is broader than the regulatory language proposed. In particular, the 2012 NDAA does not provide any guidance on whether Congress intended to exempt only those applications in which HCFCs are currently used. EPA proposed language that was limited to streaming applications to reflect its understanding that current use of HCFCs in fire suppression is limited to streaming applications. The agency sought comment on whether HCFCs were used for other nonresidential fire suppression applications, such as total flooding. EPA did not receive any comments that would counter its understanding that current use of HCFCs in fire suppression is limited to streaming

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applications. Therefore, the agency is not including total flooding applications and is finalizing its changes to 40 CFR 82.15(g)(4), 82.16(d)¹⁵, and 82.16(e)(2) as proposed.

C. Which Montreal Protocol Requirements Take Effect in 2015 and 2020?

As discussed in section II.A. of this preamble, the United States has agreed under the Montreal Protocol to limit consumption and production of HCFCs by January 1, 2015, to no more than 10 percent of its Montreal Protocol baseline. Starting in 2015, the United States cap on consumption will be 1,524 ODP-weighted MT and the cap on production will be 1,553.7 ODP-weighted MT. By January 1, 2020, the United States is required to limit consumption and production of HCFCs to 0.5 percent of baseline. As required under sections 606(a) and 614(b) of the Clean Air Act, EPA phaseout regulations reflect the Montreal Protocol schedule for phasing out HCFCs, including the 2015 and 2020 stepdowns. In developing and finalizing the HCFC allocation schedule for 2015-2019, the agency bore in mind that as of January 1, 2020, the consumption and production caps will be approximately 76 and 77.5 ODP-weighted MT, respectively. Also, as of January 1, 2020, Article 2F of the Protocol limits United States production and consumption of HCFCs to servicing needs for refrigeration and air conditioning equipment. In addition, CAA section 605(a) limits the use of virgin HCFCs as of January 1, 2015, to use as a refrigerant in equipment manufactured prior to 2020, and use as a nonresidential fire suppressant. EPA regulations also prohibit the production and import of virgin HCFC-22 or HCFC-142b for refrigeration uses as of January 1, 2020 (see 40 CFR 82.16(e)). The 2015 and 2020 milestones in the Montreal Protocol and the Clean Air Act provide a framework within which EPA proposed, and is now finalizing, the HCFC allocations for 2015-2019.

¹⁵ EPA intended to use parallel language for production and import of HCFCs for fire suppression in § 82.16(d) but inadvertently omitted the phrase “listed as acceptable for use or acceptable subject to narrowed use limits” from the clause regarding imports. EPA is correcting this omission in the final rule.

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V. HCFC Baselines for 2015-2019

EPA proposed to keep the post-*Arkema* historical baselines in the December 2013 proposal (as adjusted to reflect subsequent name changes and inter-company baseline allowance transfers), for the 2015-2019 regulatory period. The baselines for production and consumption of the seven HCFCs for which EPA has allocated allowances can be found at 40 CFR 82.17 and 82.19, respectively. Through today's final rule, EPA is finalizing those same baselines for 2015-2019 for all HCFCs subject to the allocation system. More information on the HCFC baseline system and the *Arkema* lawsuit is found in section II.B. of this preamble.

EPA received six comments on how it would determine baselines for 2015-2019 regulatory period, all in support of maintaining the existing baseline system. National, the Alliance, Combs Investment Properties, *Arkema*, Honeywell, and AMPAC all support (or in the case of AMPAC, do not object to) EPA's proposal to maintain existing baselines. Several commenters reference the certainty and stability that maintaining the current system would provide, or the confusion that new baselines would cause, and agree with EPA that altering baselines would not provide environmental benefit. One commenter explicitly referenced EPA's statements that revised baselines would not affect the overall, aggregate allocation since it is the percentage of baseline issued—not the aggregate baseline itself—that determines the allowed amount of production and import in a given year. AMPAC states that it supports establishment of baselines such that only actively consuming companies receive baseline allowances and it supports reallocating any allowances proportionately from non-active companies to those that are still using allowances.

Since EPA proposed to maintain the current baseline system, and commenters were supportive of the proposal, the agency is finalizing the same baselines it used in the 2012-2014

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Rule. In response to AMPAC's comments, the agency believes that reallocating baselines, especially this far into the phaseout of HCFCs, would cause uncertainty and confusion. As discussed above, altering baselines would not provide environmental benefit. In addition, changing baselines for 2015-2019 could interfere with the agency's longstanding goal of an orderly transition out of HCFCs. Since baseline allowances are tradable, there is flexibility within the current system to allow companies to grow or shrink their activity in the market. The agency's consideration of updated baselines and its reasons for not proposing to revise baselines are discussed in more detail in the proposed rule (78 FR 78083).

VI. HCFC Allowance Allocation Amounts for 2015-2019

Section 605(a) of the Clean Air Act limits the use of newly-produced (i.e. virgin) HCFCs beginning January 1, 2015. Under the statute, the uses of virgin HCFCs are limited to use as a refrigerant in appliances¹⁶ manufactured prior to 2020 (EPA accelerated this manufacturing date to 2010 for HCFC-22 and HCFC-142b)¹⁷ and as a nonresidential fire suppressant, if listed as acceptable under SNAP for this end-use. HCFC-22 and HCFC-123 are both used as refrigerants, and thus EPA is issuing allowances for these chemicals. EPA is also issuing consumption and production allowances for HCFC-142b and HCFC-124, since both are listed as acceptable for certain refrigerant end-uses and limited, albeit decreasing, demand for refrigerant blends containing these HCFCs continues.

¹⁶ The Clean Air Act defines appliance as "any device which contains and uses a class I or class II substance as a refrigerant and which is used for household or commercial purposes, including any air conditioner, refrigerator, chiller or freezer."

¹⁷ EPA accelerated the 605(a) use restrictions for HCFC-22 and HCFC-142b in the 2010-2014 Rule. Consequently, HCFC-22, HCFC-142b, and blends containing either can only be used as a refrigerant in appliances manufactured before January 1, 2010, not 2020. Additionally, the Clean Air Act allows use and introduction into interstate commerce of virgin HCFCs for use in transformation, but since this use does not require consumption or production allowances, it is not discussed in this section.

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EPA is not issuing allowances for HCFC-225ca or HCFC-225cb because neither is used as a refrigerant nor as a fire suppressant, though the agency is finalizing a narrow *de minimis* exemption for the use of existing inventory of HCFC-225ca, HCFC-225cb, or a mixture of the two isomers (HCFC-225ca/cb) in specialty precision cleaning needs. EPA is also adopting a narrow *de minimis* exemption for the use of inventory of sterilants containing HCFC-124. Both of these exemptions are discussed at section IV.B. of this preamble.

Use of HCFC-141b was banned effective January 1, 2010 (see 82.15(g)(1),(3)), with limited exceptions. In addition, the exemption from the class II phaseout that allows for HCFC-141b exemption allowances does not continue beyond 2014 (see 40 CFR 82.16(b),(d)). The agency is finalizing its proposal to remove 40 CFR 82.16(h), which described the petition requirements for receiving HCFC-141b exemption allowances. EPA did not receive any adverse comments on removing this regulatory language.

As stated in the proposal and in accordance with 40 CFR 82.18(a)(2) and (3), EPA is issuing Article 5 allowances¹⁸ for 2015-2019 to each company with a production baseline for any HCFC. The allocation is equal to 10 percent of the company's production baseline for that HCFC, regardless of whether production or consumption allowances are issued for that HCFC in 2015-2019.

The final HCFC allowance allocations discussed in the following sections were developed with consideration of many factors, including: production, import, and use restrictions in the CAA and Montreal Protocol; current HCFC uses and trends, including inventory trends for HCFC-22; historic allowance use; the expected availability of recovered and reused material; servicing need projections in EPA's *2013 Servicing Tail Report*; comments received on the

¹⁸ Article 5 allowances allow a company with an HCFC baseline to produce that HCFC only for export to Article 5 Parties under the Montreal Protocol. See 40 CFR 82.18(a).

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proposed rule; the availability of alternatives for each HCFC in each end-use; and proposed EPA action through the SNAP program regarding higher-global warming potential¹⁹ (GWP) alternatives. In the case of HCFC-22 and HCFC-142b, EPA also considered the fact that under long-standing regulations, production and import of these two HCFCs must be phased out by January 1, 2020.

The agency released its HCFC servicing need projections (i.e., estimates of HCFC use) and other data supporting its proposed allocations for 2015-2019 in the *2013 Servicing Tail Report* on HCFC market needs with the proposed rule in December 2013. The agency made several revisions to the HCFC-123 fire suppression sections of the report and released the revised report with the Notice of Data Availability published April 7, 2014 (79 FR 19077). With this final action, the agency is releasing the updated *2014 Servicing Tail Report*, which reflects data and certain comments received during the public comment period. Both the 2013 and 2014 versions of the *Servicing Tail Report* are found in the docket for this rulemaking.

A. *What Is the 2015-2019 HCFC-22 Consumption Allocation?*

1. *Summary of Final HCFC-22 Consumption Allocation*

In developing the proposed rule, EPA considered three options for determining the quantity of HCFC-22 consumption allowances to allocate. Each involved a declining allocation from year to year. The overarching goal of all of the proposed approaches was to meet servicing needs and encourage a smooth transition away from HCFC-22, while meeting the Clean Air Act and Montreal Protocol phaseout requirements. Under the linear approach (Option 1), which was EPA's preferred approach, the agency proposed to decrease the allocation by the same amount

¹⁹ Global warming potential is a measure of the total energy that a gas absorbs over a particular period of time (usually 100 years), compared to carbon dioxide.

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each year, such that there is a linear decrease in allowances from 2015 through 2019, ending at zero in 2020.

Within Option 1, EPA's preferred starting point in the proposal was approximately 13,700 MT, but the agency also proposed to start at 16,700 MT or 10,000 MT—each with consistent annual decreases in allocation, ending at zero in 2020. EPA based the preferred starting point of 13,700 MT on a linear decrease from the lowest allocation previously proposed for 2014 (see 78 FR 78072). The higher starting point of 16,700 MT was based on the 2014 allocation, prior to the addition of approximately 3,000 MT of recoupment allowances (20,100 MT), and the lower proposed starting point of 10,000 MT was approximately half of the 2014 pre-recoupment allocation.

For each starting point within this linear five-year approach, EPA considered information concerning the HCFC-22 market in 2012 and 2013, particularly (1) changes in inventory, (2) the availability of recycled and reclaimed HCFC-22, (3) recent sales of HCFC-22 alternatives, and (4) allowance expenditure in recent years.

Under Option 2, EPA proposed a three-year linear approach, where consumption would be zero in 2018 instead of 2020. The proposed starting points in 2015 were 12,300 MT or 15,000 MT.

Under Option 3, EPA proposed to estimate servicing need as published in the *2013 Servicing Tail Report*, and then make adjustments to account for estimated recovery and reuse and for inventory, much like it did in the 2010-2014 and 2012-2014 Rules. Under the estimation approach, the maximum starting allocation in 2015 would be 23,100 MT, but with a wide range of possible allocations in each year, including 2015. Under the estimation approach EPA proposed to “account for up to 10,000 MT of inventory each year.” Since the estimation

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approach is predicated on modeled servicing need, it has a significantly higher starting allocation than either of the linear approaches (Options 1 and 2). This is why EPA specifically proposed to account for existing inventory, whereas the linear approaches inherently account for inventory, given their lower starting points relative to past allocations and projected need.

For the reasons discussed in the remainder of this section of the preamble, EPA is finalizing an HCFC-22 consumption allocation that starts at approximately 10,000 MT in 2015 (7.0% of baseline), and decreases by approximately 2,000 MT each year, such that the allocation in 2020 is zero. This is the lowest proposed variant of EPA's preferred five-year linear approach (Option 1). EPA is revising the table at 82.16(a) to reflect the percentage of consumption allowance baseline issued in each year from 2015-2019.

2. EPA's Collection, Consideration and Use of Aggregate HCFC-22 Inventory Data

On August 8, 2013, EPA sent requests to nine companies asking for each company's year-end inventory of HCFC-22 from 2008-2012. Under section 114(a) of the Clean Air Act, EPA has the authority to ask any person who is subject to any requirement of the Act to establish and maintain such records, make such reports, and provide such other information as the Administrator may reasonably require. These nine companies included HCFC-22 producers, importers, distributors, and reclaimers; some are large allowance holders and others are not. The group has a significant role in the HCFC-22 market, and because they are different types of entities, data from these companies provide information on how much HCFC-22 might be in the supply chain. In collecting inventory data, EPA did not intend to determine exactly how much inventory or "stockpiled gas" exists, but to understand the general scale of inventory and trends in the growth or decrease in inventory as HCFC-22 allowance allocations changed.

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2008 through 2012 aggregate inventory data from these nine entities was fully available to EPA before the proposed rule was signed and EPA considered these data in development of the proposed rule. Aggregate data was subsequently placed in the docket as explained below. Aggregate inventory as of December 31, 2011, was approximately 62,000 MT. At the end of 2012, inventory had decreased by 17.5 percent (approximately 10,000 MT) to just over 51,000 MT.

Prior to signature of the proposal, on November 23, 2013, NRDC filed a FOIA request for the aggregate inventory data; however, the agency did not immediately release the data with the proposed rule or in response to the FOIA request because two responding companies had claimed the aggregate data as confidential business information (CBI). Per EPA's regulations at 40 CFR Part 2 Subpart B, when the agency desires to determine whether business information in its possession is entitled to confidential treatment, or when the agency learns that it is responsible for responding to a FOIA request for the information, it must first determine which businesses, if any, have asserted claims of business confidentiality and generally must provide the affected businesses an opportunity to comment. The agency subsequently issues a final administrative determination of whether the business information is entitled to confidential treatment. If the agency determines that the information is not entitled to confidential treatment, it provides notice to the affected businesses, stating that the agency will make the information available to the public on the tenth business day after the business' receipt of the written notice unless the business commences an action in federal court for judicial review of the determination and to obtain a preliminary injunction against disclosure.

The agency followed these procedures with respect to the inventory data and on February 18, 2014, EPA issued a final determination that the aggregate inventory data are not entitled to

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confidential treatment. After notifying the two companies of its intent to release the aggregate data and waiting the required 10 business days before releasing the data, EPA made the 2008-2012 inventory data public on its website and responded to the FOIA submitted by NRDC. EPA sent a second letter under the authority of section 114 of the Clean Air Act to the same nine entities on February 27, 2014, requesting each company's HCFC-22 inventory as of December 31, 2013. No company claimed the aggregate inventory data for 2013 as CBI. Aggregate inventory at the end of 2013 was approximately 54,000 MT, an increase of 5.4 percent over 2012 inventory.

EPA posted the 2008-2012 aggregate inventory data on the agency's website at <http://www.epa.gov/ozone/title6/phaseout/classtwo.html> and notified stakeholders via email on March 10, 2014. EPA posted the 2013 aggregate inventory data on the agency's website and notified stakeholders via email on March 27, 2014. In addition, the agency formally announced the availability of these data on April 7, 2014, in a Notice of Data Availability (NODA). The aggregate HCFC-22 inventory data (*2008-2013 HCFC-22 Aggregate Inventory Data*) and the April 7 NODA can be found in the docket at www.regulations.gov/#!docketDetail;D=EPA-HQ-OAR-2013-0263.

In addition to the section 114 requests, the agency also held more than 60 meetings with stakeholders and in almost every meeting inventory was discussed in a general sense to gauge how large industry-wide inventory might be. While not definitive, most of these stakeholder conversations confirmed our view that inventory identified through the 114 process represents a significant share of total inventory in the United States.

3. Explanation of the Agency's Final Decision and Response to Comments

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In this section, EPA explains the rationale and process for reaching a final decision on the HCFC-22 consumption allocation. The agency's overarching goal is to meet the 2020 phaseout deadline for HCFC-22 production and import in a manner that achieves a smooth transition to more environmentally-friendly alternatives. Further, EPA has sought to accomplish this transition in a way that provides regulatory certainty to consumers and industry without prematurely stranding equipment (i.e., equipment owners should not feel forced out of HCFC-22 if their equipment is still within its expected lifetime). EPA's focus in this rule is stratospheric ozone protection, and the focus on this section is the HCFC production and consumption phaseout under section 605(b)-(c) of the CAA, taking into account the HCFC use restrictions in section 605(a). EPA has also been mindful, however, of actions the agency is proposing under section 612, and has noted, where applicable, the climate implications of various options for implementing the HCFC-22 phaseout.

The reasoning for determining the final HCFC-22 allocation, as discussed more in this section, can be summarized as follows:

- (i) The first question the agency considered was whether to issue allowances, as proposed, or to move forward with some commenters' suggestion of issuing zero allowances starting in 2015. As discussed in this section, EPA did not propose to issue zero allowances for several reasons, and those reasons were reaffirmed by several other commenters.
- (ii) After determining that consumption allowances would be issued, EPA considered the question of methodology: a linear approach, with consistent annual decreases (Options 1 and 2 from the proposal) or the estimation approach (Option 3), which

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is an approach used in past HCFC allocation rulemakings. The agency concluded that a five-year linear approach is most appropriate for the last five years of the HCFC-22 phaseout. A five-year approach conforms to long-standing market expectations and provides much needed market certainty.

- (iii) The final consideration was what level to use as the starting point in 2015. A starting point of 10,000 MT in 2015 addresses the concerns about over-supply of HCFC-22 and the large existing inventories, while encouraging transition, reclamation and proper refrigerant management.

The agency carefully considered market information, comments, regulatory and statutory requirements, and its long-standing policy objectives as it weighed the merits of the proposed approaches and came to a final decision on the amount to allocate for 2015-2019. In the remainder of this section, EPA summarizes and responds to a majority of the comments. The full *Response to Comments*, which summarizes and responds to each comment received on the proposed rule, is available in the public docket at www.regulations.gov/#!docketDetail;D=EPA-HQ-OAR-2013-0263.

i. EPA's Decision to Issue Allowances for 2015-2019

Sixteen commenters support a lower allocation than any of the proposed options, with most of them advocating for an allocation of zero in 2015. EPA did not propose a zero allocation option for 2015-2019, but commenters assert that dramatically reducing or eliminating the allocation would: (1) provide decisive action needed to correct the oversupply of HCFC-22; (2) encourage development of new low-GWP alternatives and use of non-ODS alternatives; (3) encourage responsible reclamation practices and revive the reclamation industry; and (4) encourage improved leak reduction and product stewardship. Commenters also state that

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between the large amount of HCFC-22 currently in inventory, decreased demand, better leak control, use of reclaimed HCFC-22, and availability of alternative refrigerants, consumers can be assured of sufficient capacity to service their existing systems without EPA granting a significant amount of new HCFC-22 allowances. Among others, these commenters include NRDC, EIA, Hudson Technologies, and other reclamation companies that commented individually and also as part of the New Era Group, Inc. coalition.

Two commenters, NRDC and EIA, state that the lower allocations they advocate for (zero allowances of HCFC-22, or if not zero, then Option 2 with a modified three-year phasedown) are logical outgrowths of the proposal and as such, satisfy the legal requirements to offer opportunity for comment.

EPA is not finalizing commenters' suggestion of issuing zero allowances in this rule for several reasons. First, recent market data support the issuance of allowances. Data from 2012 and 2013 show that there is still considerable servicing need for HCFC-22. Data collected through EPA's section 114 process show that inventory drawdown in 2012 was over 10,000 MT. Given that consumption was 25,600 MT, and reclamation was over 4,000 MT, it is clear that in 2012 there was still significant servicing demand for HCFC-22. In 2013, consumption was 29,146 MT, and inventory build from the nine companies was only 2,800 MT, or about a 5 percent increase in their aggregate inventory levels. (The increase in inventory from these nine companies is about equal to the number of recoupment allowances that were issued in addition to the final consumption allocation.) Reclamation was also more than 3,500 MT. Based on these data, the agency concludes that there is still significant servicing need for HCFC-22. Continued servicing need for existing equipment is not unexpected, problematic or otherwise contrary to the goals of the phaseout. Allowing consumers to continue operating equipment using the refrigerant

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for which it was designed is instrumental to the agency's goal of a smooth transition while safeguarding the viability of the reclamation industry.

Second, while there would be a benefit to the stratospheric ozone layer from not allocating allowances for 2015-2019, the total level of HCFC consumption allowances allocated over the five year period covered by this rule is already 75 percent below the maximum level of consumption permitted by the Montreal Protocol and EPA's regulations implementing sections 605 and 606 of the Clean Air Act. In addition, by finalizing the option starting at 10,000 MT rather than the option starting at 13,700 MT, EPA is taking an additional step towards stratospheric ozone protection by preventing the consumption of more than 11,000 MT of HCFC-22 over the five year period. EPA disagrees with commenters about the climate benefits of a zero allocation approach. Some of these commenters state that the future emissions resulting from a large allocation of HCFC-22 would have significant climate impacts and be contrary to the President's Climate Action Plan. Hudson states that eliminating or further reducing HCFC-22 allowances beyond EPA's preferred approach in the proposal would be "one of the most significant actions the Administration could take in the short-term to address global climate change." Two commenters believe EPA's preferred approach may benefit the consumer, but is at odds with the agency's greenhouse gas reduction goals. In total, twelve commenters state that EPA's preferred approach will result in significant and unnecessary emissions of HCFC-22 to the atmosphere, and recommend adopting a faster phaseout schedule to minimize environmental impact.

On the other hand, Arkema and the Department of Defense (DoD) do not believe that eliminating HCFC-22 allowances before 2020 would have environmental benefits, especially since the agency is reducing consumption at a faster rate than the Montreal Protocol requires.

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They believe that an overly quick phaseout schedule may accelerate equipment replacement, and DoD points out that the commercial availability of equipment using low-GWP alternatives is limited for some uses. DoD states that accelerating transition to equipment using high-GWP alternative refrigerants may not benefit the environment. One commenter is concerned about emissions from the venting of HCFC-22, but also states that the movement to switch out of HCFC-22 is creating a problem related to the high GWPs of the HCFC-22 substitutes. FMI is concerned about accelerated or poorly planned retrofits in the retail food sector from a shrinking HCFC-22 supply, which could lead to an increase in energy use.

EPA notes that commenters claiming that a zero allocation would reduce HCFC-22 emissions and accordingly have climate benefits, do not account for the emissions of the refrigerant that would replace HCFC-22. Calculating potential HCFC emissions avoided, without considering emissions from replacement refrigerants, does not give a true picture of climate impacts. In addition, while new systems like R-410A residential unitary air-conditioners often have smaller charge sizes and lower leak rates than the HCFC-22 equipment they replace, this is not the case for retrofits of existing unitary equipment.

A zero allocation would likely accelerate retrofits, particularly in residential unitary air-conditioning. The agency heard from numerous stakeholders that retrofits and system replacements increased when the price of HCFC-22 went up in 2012 and early 2013. Data collected from alternatives producers show a dramatic increase in sales of HCFC-22 retrofit refrigerants²⁰ since 2011. EPA has also heard that during the last several years, service technicians have become more aware of and comfortable using non-ODS retrofit refrigerants. As

²⁰ e.g., R-407C, R-421A, R-422D, R-438A, and numerous other non-ODS alternatives

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the phaseout progresses, the percentage of HCFC-22 demand met by retrofit refrigerants is expected to continue to rise.

EPA believes retrofits are an important option for many consumers as HCFC-22 is phased out; however, the agency does not want to prematurely drive consumers away from the refrigerant their system was designed to run with. EPA is concerned that a zero allocation could unnecessarily push equipment owners to retrofits, potentially discouraging continued operation of HCFC-22 equipment with reclaimed refrigerant. In addition, HCFC-22 systems generally run most efficiently on HCFC-22, and to the extent stakeholders wish to evaluate the climate impacts of various options, energy efficiency is also an important climate consideration. Retrofitting an existing system can also decrease capacity, meaning a system must run longer and use more electricity in order to generate the same cooling output. A decreased capacity may also result in the inability of equipment to meet the sensible (temperature) and latent (humidity) cooling needs required throughout the season.

Additionally, stakeholders should be aware that most retrofit refrigerants (often inaccurately called “drop-ins”²¹) have higher GWPs than HCFC-22’s GWP of 1810, particularly in residential unitary air-conditioning—the predominant use of HCFC-22. While not a retrofit, R-410A is the most common non-ozone depleting substitute for use in residential air conditioning, with a GWP of approximately 2090. In retail food refrigeration, which is the second largest HCFC-22 end-use, some of the alternatives are high GWP refrigerants. For example, the most common refrigerants used for refrigeration equipment in supermarkets, R-

²¹ EPA finds the use of the term “drop-in replacement” as misleading when advertising refrigerants that substitute for an ODS refrigerant, such as HCFC-22, since the term confuses and obscures several important regulatory and technical points. At minimum, a new type of lubricant will often be needed, certain parts such as elastomer gaskets will need to be replaced, and/or settings such as on TXVs will need adjustment. EPA also encourages technicians to repair leaks before re-charging with refrigerant.

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404A, R-507A and R-407A, have GWPs of approximately 3920, 3990 and 2110, respectively.

Certain high-GWP alternatives in the retail food sector may be subject to additional constraints in the future since the agency is proposing to change their acceptability status under its SNAP regulations. If the HCFC allocation level were set at zero, that could encourage a near-term transition into high GWP gases that the agency has proposed to remove from the list of acceptable ODS substitutes (e.g., R-404A and R-507A). Such a result would mean that a zero allocation would fail to achieve the climate benefits envisioned by the commenters.

Several commenters supporting a zero allocation assert that an over-supply of HCFC-22 discourages the transition to alternatives. Two commenters make statements on the rate of transition to HCFC alternatives. One commenter, ICOR International, notes that recent history shows that when the HCFC-22 allocation is low and the price of HCFC-22 is high, recovery rates go up and the transition to alternatives rapidly accelerates. Hudson Technologies states that programs like EPA's GreenChill Advanced Refrigeration Partnership have resulted in a more rapid transition away from HCFC-22 in the supermarket sector and the proliferation of HFC alternatives now represent 25 percent of the market. But Hudson Technologies also notes that HCFC-22 systems operate more efficiently with HCFC-22 than HFC-based alternatives and states that the use of reclaimed HCFC-22 is the best solution for HCFC-22 system owners. Several commenters assert that the 2012-2014 Rule hurt the alternative refrigerant industry, whose sales decreased significantly. USA Refrigerants believes that the 2012-2014 Rule was working well to encourage a transition to alternatives and that SNAP-approved refrigerants are providing cost-effective alternatives to Americans. Three commenters note that there are several HCFC-22 alternatives available across a range of applications that are reducing dependence on HCFC-22.

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The agency supports encouraging new alternatives that offer improved environmental profiles to HCFC-22. However, as noted above, many of the existing alternatives in sectors that rely on HCFC-22 (e.g., residential AC and retail food refrigeration) have GWPs comparable to or higher than HCFC-22. In later parts of this section, EPA addresses existing HCFC-22 inventories and the importance of encouraging transition, reclamation and improved refrigerant management practices.

Three commenters explicitly oppose a zero allocation approach, which they believe would cause unanticipated market disruptions. In meetings after the issuance of the proposed rule and in their comments, Heating, Air-conditioning and Refrigeration Distributors, International (HARDI) expressed concerns that a zero allocation approach would leave insufficient time for distributors to plan their business, especially considering the long-standing expectation of an allocation through the end of 2019. Additionally, there are concerns that going to zero so quickly would leave some distributors without access to HCFC-22 for the customers who operate and service HCFC-22 equipment. Another commenter, Arkema, questions the reclamation industry's ability to be the sole source of refrigerant needed to service consumer demand. Arkema also notes that the five-year timeline is especially important as EPA and the international community shift to regulation of HFCs; there should be no precipitous incentive to make inefficient switches to alternatives that may be phased out later. EPA believes its decision to issue allowances for 2015-2019 addresses these commenters' concerns. The third commenter, ACCA, does not support a zero allocation because they believe it would cause tremendous volatility and uncertainty in the market, which would likely lead to upward price fluctuations.

In the proposal, EPA recognized that some stakeholders had encouraged the agency to cease allocating allowances for HCFC-22 in 2015. The proposal noted that a zero allocation

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could have unintended consequences, given the longstanding expectation that the agency would issue allowances through 2019, and could adversely affect the business and transition planning for much of industry, particularly owners and operators of HCFC-22 equipment. In their comments and in subsequent meetings with EPA, many commenters point out that going to zero in 2015 is not supported by a majority of market participants, both small and large businesses, including but not limited to: producers, importers, distributors, contractors, and the end-user community. Given the long-standing expectation that allowances for production and import of HCFC-22 would be available through 2019, EPA agrees with comments that issuing zero allowances for 2015 could cause chaotic and unanticipated market disruptions, particularly because a zero option was not proposed.

The agency continues to believe that a zero allocation is contrary to the goal of an orderly transition, and would lead to a high degree of market uncertainty. Given the diverse, and in some cases competing, legitimate needs, objectives and interests of the HCFC-22 stakeholder community, EPA can best meet its goal of a smooth transition and a 2020 production phaseout by sending a clear market signal for 2015-2019. Based on the rationale laid out in the proposed rule and in today's final rule, EPA is issuing consumption allowances for HCFC-22 in 2015 and beyond.

ii. *EPA's Decision to Use a Five-Year Linear Approach for 2015-2019*

Having decided to issue allowances for HCFC-22 during the 2015-2019 regulatory period, the agency's next decision was which methodology to use in setting the allocation. Based on the considerations below, EPA is finalizing allowances using a five-year linear approach.

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As a methodology, a linear approach has many clear benefits, not least of which is that it is simple and easy to communicate to affected parties. This aspect is important for service technicians, since they are often the ones directly interacting with home and business owners. It is often their job to explain what the HCFC phaseout means and how it works. Providing technicians with an easier-to-explain common sense approach should improve consumers' understanding of the phaseout and the options available to them. EPA developed several fact sheets that discuss the HCFC phaseout and the choices available to consumers to provide technicians and equipment owners with additional information. These fact sheets can be found at: www.epa.gov/ozone/title6/phaseout/class2.html.

EPA recognizes that as a chemical reaches its production phaseout, modeling HCFC-22 servicing needs with precision becomes increasingly difficult. While EPA's Vintaging Model is updated frequently to reflect changes in the marketplace, it is not designed to model how the specific allocation amounts in recent years affects servicing need in future years, nor is it designed to model certain other events that may affect supply, e.g., the effects of a hot or cold summer, or the general state of the economy. The difficulty of predicting certain real-time market factors is one reason that the agency has not relied heavily on modeled servicing need in the final HCFC-22 allocation for 2015-2019, and why EPA has always relied on modeling as one tool among many considered in deciding the final allocation.

One commenter favors the estimation approach (Option 3) in order to stabilize the market. Other commenters oppose the estimation approach because in their view it would reduce incentives for recovery, does not account appropriately for stockpiles, and allocates more HCFC-22 than is needed. Another commenter, Johnstone Supply, supports a five-year phaseout similar to Option 3 but with approximately two-thirds of the allocation cut.

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Six commenters specifically address technical aspects or parameters in EPA's 2013 *Servicing Tail Report*. Several of these commenters question the report's accuracy and say EPA's projected servicing need for HCFC-22 does not adequately account for: sales of alternative and retrofit refrigerants, declining leak rates (especially for GreenChill partners), servicing needs, existing HCFC-22 stockpiles, the capabilities of the reclamation industry, recycling, and future economic and weather conditions. One commenter, EOS Climate, incorrectly asserts that EPA assumes growth rates in all categories of HCFC-22 equipment despite the fact that virgin HCFC-22 can only be used for pre-2010 equipment and that imports of dry-shipped condensing units are decreasing. Another commenter, North Lakes Distributing, Inc., believes EPA "has displayed a pervasive unwillingness to scrap the old inaccurate bottom up analysis," such as that used in the *Servicing Tail Report*. The commenter believes that if top down manufacturing supply information is not collected, estimates of usage in individual market sectors are not useful. EPA reiterates that the five-year linear approach uses a common sense approach, focused on a 2015 starting allocation that will encourage transition and a gradual phase out production and consumption of HCFC-22 by 2020. Also, since the 2015 allocation is less than one-quarter of modeled servicing need as presented in the 2013 *Servicing Tail Report*, EPA believes that it has adequately addressed these commenters' concerns for the purposes of the 2015-2019 allocation. The agency responds to specific comments more fully in the *Response to Comments* document.

Since the market for virgin HCFC-22 is solely for servicing air-conditioning and refrigeration equipment that was installed prior to 2010,²² EPA believes that annually decreasing the allocation by the same amount over five years is appropriate. Such an allocation schedule

²² With limited exceptions through the end of 2011

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should drive the necessary changes in the service market to prepare for the 2020 phaseout, without unnecessarily forcing transition or retrofits out of HCFC-22 equipment that is still within its expected lifetime. A five-year linear approach sends a clear market signal about the allowed production and import of HCFC-22 in each year leading up to the 2020 phaseout date. It also allows industry time to digest, comment on and participate in the public regulatory process related to actions EPA is proposing to take under SNAP to further the goals of the President's Climate Action Plan. Actions under SNAP may bear on end-users' decisions about continuing to operate equipment with HCFC-22, or retrofitting or replacing the equipment. EPA is concerned that a three-year linear reduction to zero could increase the likelihood that end-users would rush to transition from HCFC-22 without adequately considering their longer-term options. A five-year approach provides more time for the introduction of alternatives that reduce overall risk, before the complete phaseout of HCFC-22 production and virgin import. A five-year approach with consistent annual decreases strikes an important balance: recognizing that the phaseout of virgin production and import is only five years away, without forcing end-users to retrofit or replace their equipment designed for HCFC-22. Continued operation of HCFC-22 equipment also helps ensure that HCFC-22 is valuable; HCFC-22 is less likely to be vented and more likely to be reclaimed and reused if it has economic value.

EPA received numerous comments in support of the five-year linear approach. Commenters stated that the five-year linear approach will "provide steady incentives" to reclaim material and move to alternatives, while also giving consumers and equipment manufacturers "sufficient time" to prepare for the transition. Competition, market stability and ensured access to HCFC-22 were also cited as reasons to use a five-year linear schedule for issuing HCFC-22 allowances from 2015 through 2019. EPA generally agrees with these comments.

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EOS Climate prefers the three-year drawdown, claiming that it partially accounts for existing stockpiles and provides significant environmental benefits compared to EPA's lead proposal at no additional cost. NRDC, Combs Investment Properties, Hudson Technologies, and EIA support a modified 3-year approach if EPA does decide to issue allowances. One commenter, DuPont, opposes a three-year schedule because ending the allocation in 2018 would result in a chaotic market. EPA sees the three-year schedule as having some of the same drawbacks as the zero allocation approach, given the longstanding expectation that the agency would issue allowances through 2019. Not allocating allowances in 2018-2019 could adversely affect the business planning and transition plans for much of industry, particularly owners and operators of HCFC-22 equipment. EPA addresses the role of inventory in the next section and the environmental benefits of EPA's chosen approach in the previous section.

EPA has explained here the merits of the linear approach, which are supported by many commenters. Based on the available data, current market perceptions and the 2020 phaseout deadline, the agency believes a five-year linear drawdown best addresses the concerns and suggestions of a majority of the commenters. In the following paragraphs, EPA explains why it is finalizing a starting point lower than its preferred starting point of 13,600 MT.

iii. EPA's Decision to Use a Five-Year Linear Approach, Starting at 10,000 MT in 2015

Twelve commenters support Option 1, with the lower starting point of 10,000 MT in 2015. Several of these commenters are industry associations representing anywhere from 50 to several hundred small and large businesses. Commenters favor this option because it is one of the lowest allowance options proposed, it would provide the fewest allowances in 2015 and 2016, and because the linear approach provides market stability through its consistent annual decreases in allocation. The commenters generally advocate for a lower allocation than EPA's

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proposed starting point of 13,700 MT in order to send a strong early market signal of tightening supply, compensate for larger-than-estimated HCFC-22 inventories, and stimulate reclamation.

Five commenters support Option 1 starting at 13,700 MT. Those in support of EPA's preferred starting point of 13,700 MT believe that it offers the smoothest transition, while faster reductions may result in refrigerant shortages and high prices. The Food Marketing Institute supports a linear approach, but suggests a higher starting point than 13,700 MT. Options 2 and 3 each received support as the preferred option from one commenter.

The agency is finalizing a 2015 allocation of 10,000 MT, with a decrease of approximately 2,000 MT each year thereafter. In deciding on the amount of the 2015 allocation, EPA gave further consideration to the market factors discussed in the proposal. Many of these market factors are discussed earlier in this section as support for EPA's decision to issue allowances in 2015-2019. EPA's decision to finalize a starting point of 10,000 MT was primarily based on three considerations: the availability of larger-than-anticipated inventory, the importance of a viable reclamation industry and the market-signaling effects of a sufficiently low 2015 and 2016 allocation.

In the 2012-2014 Rule, the agency estimated industry-wide inventory to be between 22,700 MT and 45,500 MT. As explained in section VI.A.2, in the fall of 2013, the agency asked nine entities in the HCFC-22 market about their year-end inventory. Aggregate inventory data from these nine entities were fully available to EPA while developing the proposed rule. With the knowledge that aggregate inventory held by these nine major entities at the end of 2012 was 51,100 MT, which is higher than the upper end of EPA's estimate used in the 2012-2014 rulemaking, EPA proposed 13,700 MT as its preferred starting point for 2015. At the request of industry, EPA also collected 2013 year-end inventory data from these same nine companies. At

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the end of 2013, inventory had grown by 2,800 MT, an increase of 5.6% from 2012. The proposed 2015 starting points for the linear draw-down approaches are much lower than under the estimation approach, in part because of the inventory data EPA was able to collect and consider while developing the proposal.

EPA is aware that these nine entities do not hold all inventory industry-wide. EPA was not seeking precise inventory numbers. The agency did not consider inventory as a result of a statutory mandate to do so. Rather, EPA believed it was reasonable to allow the approximate scale of inventory and inventory trends to inform its general understanding of the market. Given the data collected in the fall of 2013, and the numerous conversations with many companies throughout the supply chain, EPA believes that the data from these nine companies are representative of the trends and scale of inventory across the entire market, and that the aggregate held by these nine companies accounts for a large proportion of total inventory. The data collected show that aggregate inventory is large enough to justify a starting allocation of 10,000 MT instead of 13,700 MT. While additional inventory data from more entities might further support a 10,000 MT starting point, these data would not eliminate the considerations that led EPA to finalize a non-zero allocation for 2015-2019.

In addition to comments on the proposal that discuss existing HCFC-22 inventory as it relates to the proposed allocation options, EPA received 15 comments on its April 4, 2014, Notice of Data Availability, announcing the 2008-2013 aggregate HCFC-22 inventory data collected from nine companies. Six comments reiterated that HCFC-22 aggregate inventory is higher than expected or previously estimated by EPA. Six commenters believe that the nine companies that EPA collected data from do not represent the entire market, while one commenter believes that nine entities likely hold a majority of HCFC-22 inventory. One

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commenter specifically names other potential sources of HCFC-22 inventory, while two comment that EPA needs to consider other sources of inventory beyond the nine surveyed companies like grocery stores and apartment buildings. Several comments explicitly state that the inventory data proves that no additional allowances are needed, while another commenter believes that the aggregate data supports issuing allowances in all five years. Two commenters add together recent allowance use, reported reclamation amounts and the change in aggregate inventory to show an estimate of actual market demand for HCFC-22, though the commenters believe that their servicing need calculations support a zero allocation in 2015 and beyond. Three commenters believe EPA needs additional inventory data to proceed with its rulemaking, but also believe that EPA should issue zero allowances.

The agency's goal is to phase out the production of HCFC-22 by 2020, consistent with Title VI of the CAA and the long-standing regulatory phaseout date, not to remove all HCFC-22 from inventory by 2020. The statute does not specify the factors EPA is to consider in setting an allocation level, other than the applicable phaseout step. Existing inventory can be beneficial during a time of transition, allowing equipment owners more flexibility in planning and implementing their transition. The availability of HCFC-22 inventory after 2020 along with continued reclamation is important for allowing equipment owners to continue using their equipment after the production phaseout. However, EPA also recognizes that current inventory grew in 2013 and is higher than some in industry expected, which is one of several reasons why EPA is finalizing a 2015 allocation of 10,000 MT instead of 13,700 MT. Now that the inventory data is public, awareness as to the *scale* of existing inventory should help moderate potential price spikes and allow equipment owners to plan a thoughtful transition to alternatives.

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Several commenters appear to be confused about how EPA considered inventory information in development of this rulemaking, as compared to the 2012-2014 Rule that issued allowances for 2012-2014. In the proposal covering 2012 through 2014, EPA considered the servicing need estimates from the Vintaging Model and made reductions to that number to derive a possible allocation that approximates the need for virgin HCFC-22, just as in the 2010-2014 Rule. For 2012 through 2014, EPA proposed to decrease annual allocations by 6,000 MT each year to account for existing inventory. In the fall of 2012, the agency estimated that inventory was between 22,700 MT and 45,400 MT, based on preliminary market research and industry feedback. The agency finalized the annual 6,000 MT reduction in the 2012-2014 Rule, thus lowering the aggregate allocation for 2012-2014 compared to the 2010-2014 Rule. EPA's intent was not to immediately deplete all inventory, as inventory can help provide for a smoother transition out of HCFC-22, but to draw out *some* of the inventory prior to 2015. In the 2015-2019 proposal, EPA specifically proposed to account for up to 10,000 MT of inventory under the estimation approach, which, unlike the linear approaches, is most similar to the allocation methodology EPA used in the 2010-2014 Rule and the 2012-2014 Rule.

In response to comments stating that EPA must consider prevailing market conditions and inventory held by entities from which it did not collect data, EPA explains above its different understanding of the role of inventory data in this rulemaking. The agency did not intend to allocate allowances at a level that would result in inventory being drawn down to zero immediately or even by 2020. The agency believes that the additional expenditure of effort, particularly the information collection burden imposed on industry, is not required to establish a reasonable and predictable allocation level for the final five years of the HCFC-22 phaseout.

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EPA appreciates that many commenters believe additional HCFC-22 production and import is unneeded based on their position in the market. EPA's allocation considers the perspectives of both the end-users that need HCFC-22 to operate their equipment and the companies recovering and reclaiming HCFC-22, because both play an integral role in meeting EPA's policy objective of a smooth transition from HCFC-22. In particular, the capability of recovery and reclamation companies is an important consideration as reclamation decreases the need for new production, thereby allowing EPA to allocate fewer HCFC-22 allowances.

In response to comments about potential inventory held by grocery stores, apartment buildings, and other large end-users, EPA points out that inventory held by a building or supermarket in preparation for a possible leak is different from inventory in the supply chain. Inventory held by these large end-users is refrigerant that they intend to use, not sell. Therefore, this type of inventory is more like refrigerant already charged into a system than inventory in the supply chain (i.e. channel inventory) that will eventually be sold to an end-user. Equipment owners have this refrigerant on-hand in order to keep operating their system, whereas inventory *in the supply chain* is waiting for someone to purchase it.

Although existing stocks of HCFC-22 are important for meeting continued servicing need, EPA recognizes that too much existing inventory could be contrary to the agency's goal of a smooth transition to alternatives. Proper refrigerant management and a viable reclamation industry are also critical to a smooth transition, which is why EPA believes that a sufficiently low allocation is needed in order to encourage the use of some existing stocks and also to encourage—but not immediately force—transition. The final 2015 allocation of 10,000 MT is less than one-quarter of the modeled 2015 servicing need. By allocating well below the projected need for HCFC-22 each year, EPA is accounting for retrofitted equipment, recovery and reuse of

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refrigerant, use of reclaimed refrigerant, and existing inventory of virgin HCFC-22, in addition to realizing the benefits of a linear drawdown already discussed.

Twenty-seven commenters addressed market issues related to the supply or price of HCFC-22; most of these commenters believe the 2012-2014 Rule led to an oversupply in the market, with adverse effects on the reclamation and alternative-refrigerant industries. Several commenters assert that the 2012-2014 Rule led to a 50-60 percent decline in the price of HCFC-22 relative to the peak price reached in 2013, a decline in volume of returned used HCFC-22, a decline in reclamation and recycling, and an increase in volume of HCFC-22 being leaked or vented. One commenter, USA Refrigerants, states that their organization and other EPA certified reclaimers were negatively affected by the change in the price of HCFC-22 and the inability to provide high buyback prices for used refrigerant, which they said dropped to as low as \$1.00 per pound. Another commenter, EIA, notes that the price of virgin HCFC-22 in 2011 was \$4.50/pound but claims that the price needs to exceed \$8/pound for reclaimed HCFC-22 to be competitive. One distribution company reports already seeing 50 percent less reclaimed material available to sell in 2014. On the other hand, Polar Technologies states that its internal analysis on the market dynamics of HCFC-22 found no correlation between price and reclaim volume. The commenter asserts that as prices increase, hoarding occurs and reclamation decreases. As HCFC-22 prices jumped and supplies seemingly were shrinking, contractors were speculating and buying up cylinders to store material to hedge against the pending shortage.

Three commenters make statements on investments by the reclamation and alternative refrigerants industry. A-Gas RemTec notes that they invested in additional capacity for reclaimed refrigerants but have since halted this development as a result of the 2012-2014 Rule. A-Gas RemTec notes that other entities may also question committing to increased capacity in an

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unpredictable market, which could lead to a refrigerant shortage in future years. Another commenter, Hudson Technologies, asserts that the reclamation industry invested millions of dollars in infrastructure, but since the supply gap never materialized, reclamation has not grown. USA Refrigerants notes that companies that invested in alternative refrigerants saw prices for HCFC-22 plummet as a result of the 2012-2014 Rule, undercutting the sale of alternatives.

Six commenters are concerned about venting of HCFC-22, which they believe is perpetuated by an oversupply of HCFC-22 and the corresponding low value of the gas. Specifically, these commenters believe that a lower (or in some cases, zero) allocation would incentivize the use of reclaimed gas and better refrigerant management.

The agency believes the best way to encourage reclamation, as well as development and use of expanded reclaimer capacity, is to send a clear market signal: a substantial decrease in allocation in 2015 with a continued, but decreasing, allocation over all five years. Such a signal should encourage recovery and reclamation, while also giving equipment owners confidence that they can have access to refrigerant for their installed HCFC-22 equipment through 2020 and beyond. The linear drawdown starting at 10,000 MT should encourage more recycling and reclamation, without creating such dramatic market changes as to incentivize hoarding of used refrigerant. This approach has the lowest allocation in 2015 and 2016 of all options discussed in the proposed rule, which should encourage better refrigerant management practices, while a small, decreasing allocation in later years should allow for a smooth transition to zero in 2020. Compared to a 2014 allocation of 23,100 MT, a 2015 allocation of 10,000 MT should encourage proper refrigerant management and more reclamation; it should also encourage planning for a transition to alternative refrigerants without unnecessarily forcing equipment owners to immediately abandon their use of HCFC-22.

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The agency views its final allocation as sending appropriate signals to the market by decreasing the HCFC-22 allowance allocation by almost sixty percent between 2014 and 2015. Further, by providing a predictable but declining number of allowances through 2019, the agency believes this final rule will give HCFC-22 equipment owners the information they need to choose between maintaining their HCFC-22 systems, retrofitting their existing systems, and purchasing new systems that rely on alternative refrigerants. EPA intends to strike a balance with the final allocation: a significant decrease from the 2014 allocation promotes alternatives, reclamation, and transition, while a non-zero allocation avoids stranding HCFC-22 equipment or forcing premature retrofits.

4. Timing of the Final Rule

Eighteen commenters urge EPA to finalize today's action as quickly as possible. They cite several reasons for expeditious action specific to the HCFC-22 allocation: to allow industry to properly plan and prepare for complying with the rule; to provide certainty and stability for business planning; and to minimize market disruption and foster a smoother transition during these final stages of the HCFC-22 phaseout. One of these commenters states that EPA is not acting quickly enough. AHRI specifically calls out the need for timely action as it relates to the HVAC market, a major use for HCFC-22, which will transition to new minimum energy efficiency standards on January 1, 2015. AHRI states that uncertainty in the HCFC-22 allocation adds complexity to this transition and that lack of knowledge regarding the HCFC-22 allocation could be detrimental to manufacturers and small business owners.

On the other hand, RMS, New Era Group Inc., and ICOR International comment that EPA needs to update its models or obtain more accurate data prior to finalizing this rule. New Era Group Inc. suggests that the proposed rule be withdrawn and the NODA republished along

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with immediate steps to mitigate the serious damage to small companies, human health, and the environment. EPA does not see a need to re-propose or to publish another NODA. As discussed earlier in this notice, EPA does not believe it needs to gather additional data or to propose additional options. The agency believes the information it has at its disposal currently is sufficient to justify the significantly lower allocation of HCFC-22 as compared to the preferred option in the proposal, especially since finalizing a rule this year will support EPA's goal of a smooth transition to alternatives.

EPA appreciates the many comments stressing the value of a timely rulemaking in providing regulatory certainty to the market. The agency agrees that it can best realize its goal of a smooth transition to alternatives via a timely 2015-2019 rule, especially in the case of HCFC-22. In addition to a timely rule, the agency and many commenters believe a linear drawdown will also provide certainty and help stabilize the market by setting a straightforward, predictable schedule for the final years of the HCFC-22 phaseout.

B. What Is the 2015-2019 HCFC-22 Production Allocation?

Since the start of the HCFC allocation program in 2003, the agency has determined the HCFC-22 production allocation in one of two ways. Under either method, EPA first determines the aggregate *consumption* allocation, divides by the aggregate baseline, and assigns the percentage of the consumption baseline accordingly. EPA describes this process in more detail in section II.B.

In the 2003-2009 Rule, and again in the 2010-2014 Rule, EPA allocated the same percentage of baseline allowances for production as it did for consumption. A company with a production baseline at 40 CFR 82.17 would simply multiply its baseline by the percentage listed

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at 82.16 to determine its calendar-year production allocation. However, in the 2012-2014 Rule covering 2012-2014, EPA provided a larger percentage of baseline and more HCFC-22 production allowances than it did for consumption. EPA amended section 82.16 to include two tables, one listing the baseline percentage for consumption and the other listing the percentage for production. As discussed in the 2012-2014 Rule, the reason for this change was to allow United States manufacturers to produce at the same level as under the 2010-2014 Rule (see 78 FR 20020).

For the 2015-2019 regulatory period, EPA proposed two options for the HCFC-22 production allocation: (1) issue production allowances at the highest allowable level under the Montreal Protocol, or (2) provide approximately the same number of production allowances as consumption allowances.

EPA noted that the first approach was its preferred option. EPA believes that allocating more production allowances than consumption allowances cannot lead to an increase in United States consumption and would not result in a global increase in production or consumption of HCFC-22; all countries' consumption are capped under the Montreal Protocol and presumably global production would be driven by market conditions. Allocating additional production allowances may have environmental benefits, to the extent that U.S. production displaces production in foreign plants that lack HFC-23 byproduct controls and destruction technologies. For more discussion on EPA's rationale for this approach, see the preambles for the 2012-2014 Final Rule (78 FR 20020) and the 2015-2019 Proposed Rule (78 FR 78089).

EPA received eight comments on how it will determine the HCFC-22 production allocation for 2015-2019. Comments from EIA, a private citizen, and Hudson Technologies stated that the industry or marketplace does not need any additional HCFC-22, and that EPA

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should not issue production allowances. Additionally, EIA believes that issuing production allowances is contrary to helping developing countries transition to low-GWP and zero-ODP technologies through the Multilateral Fund of the Montreal Protocol (which is the financial mechanism to help those Parties meet their Montreal Protocol obligations). Airgas is also against EPA's preferred option on the grounds that more production allowances for export will lead to further oversupply globally. Airgas believes that consumption and production allocations should be the same and should be set at zero or minimal levels. A private citizen supports cutting the production allocation to encourage a shift in U.S. production of ODS alternatives for export, instead of HCFC-22. The commenter acknowledges the importance of considering HFC-23 byproduct emissions, but thinks it is less important since HCFCs will be phased out globally.

DuPont and Honeywell commented in favor of EPA's proposal to allocate the maximum HCFC-22 production allowed under the Protocol after accounting for other HCFC production allocations. The commenters believe that more production for export could allow production from U.S. facilities to displace production from facilities abroad that may not control HFC-23 emissions, thus providing environmental benefits and reductions in GHG emissions. The commenters reference EPA's prior statements that allowing for additional U.S. production for export could not result in a domestic or global increase in consumption since HCFC producers are already limited by consumption allowance limits established under the Montreal Protocol. A third commenter supported a production allocation that is higher than allowed under the Montreal Protocol, starting at 25 percent of U.S. HCFC production baseline in 2015 (whereas the Montreal Protocol cap is 10 percent of baseline for all HCFCs).

In response to the five adverse comments on EPA's preferred option, the agency points out that allocating more production allowances than consumption allowances does not provide

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United States producers the opportunity to exceed their consumption allocation. Production of one kilogram of an HCFC still requires both a production allowance and a consumption allowance (82.15(a)(1), (2)). Allocating more production allowances than consumption allowances would provide United States producers the opportunity to continue production for export subject to existing regulatory constraints. A company must submit documentation to verify the export of an HCFC for which consumption allowances were expended in order to request a reimbursement of spent consumption allowances. The agency reviews the documentation and issues a notice to either deny or grant the request. Therefore, a company would not be able to produce more HCFC-22 unless it had exported an equal amount of material and been granted a refund of spent consumption allowances. To the extent that commenters support a lower production allocation to address concerns about U.S. consumption, EPA responds to those comments in Section VI.A. of this preamble.

In response to concerns about an increase in global consumption, EPA explained in the 2015-2019 Proposed Rule that allowing United States production allocation to be higher than the consumption allocation could not result in increased global consumption. Providing more production than consumption allowances could allow companies to continue exporting to non-Article 5 countries, which have the same overall Montreal Protocol phaseout schedule as the United States but may not use the United States' chemical-by-chemical approach to phasing out HCFCs. Also, consumption of HCFCs in Article 5 countries was capped starting in 2013, which further limits global HCFC-22 demand (*see* Montreal Protocol Art. 5, para. 8 *ter.*). Finally, at least one company holding production allowances does not produce HCFC-22 in the United

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States; therefore, it is unlikely that every production allowance issued will be used.²³ EPA is concerned that the alternative approach—issuing production allowances at the same level as consumption, instead of at the maximum level allowed under the cap—reduces flexibility for industry without a benefit to the environment.

EPA disagrees with EIA's comment that issuing production allowances is contrary to helping developing countries transition to low-GWP and zero-ODP technologies through the Multilateral Fund of the Montreal Protocol. The U.S. is committed to helping Article 5 Parties transition to non-ODP and low-GWP alternatives via the Multilateral Fund. Since HCFC consumption in Article 5 Parties was only capped starting in 2013, and because those Parties still have servicing needs for HCFC-22 in existing equipment, EPA does not see HCFC-22 exports during 2015 through 2019 as contrary to the goals of encouraging a transition to alternatives. Given that Article 5 countries are not required to completely phase out HCFCs until 2040, it is expected that demand for HCFC-22 will continue while low-GWP alternatives are developed and deployed to replace existing HCFC technologies.

As mentioned previously, EPA also believes that allocating more production allowances than consumption allowances could have environmental benefits if United States production displaces production at facilities that do not control byproduct emissions of HFC-23, which has a global warming potential of 14,800.²⁴ Comments on the 2015-2019 proposal cited the growth of HFC-23 emissions globally and indicated that facilities in Article 5 countries do not control HFC-23 emissions to the same degree as companies operating in the United States. EPA has

²³ Data submitted to the Greenhouse Gas Reporting Program on byproducts of the HCFC-22 production process indicate that only three of the four companies holding production allowances actually produced HCFC-22 in 2010, 2011 and 2012. While the non-producing allowance holder can transfer its allowances to another producer, the fact that they do not produce in the U.S. makes it unlikely that all calendar-year production allowances will be used.

²⁴GWP of HFC-23 presented in the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report: Climate Change 2007 (AR4)

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historically worked with industry through its HFC-23 Emission Reduction Partnership to

encourage companies to reduce HFC-23 byproduct emissions from the manufacture of HCFC-

22. For further discussion see the 2015-2019 Proposed Rule at 78 FR 20021.

Based on the consideration of the comments, and for reasons discussed here, EPA is issuing the maximum number of HCFC-22 production allowances allowed under the Montreal Protocol cap, after accounting for production allocations of all other HCFCs provided under this rule. Starting in 2015, the United States production cap under the Montreal Protocol is 1,553.7 ODP-weighted MT. The final production allocations for HCFC-124 and HCFC-142b are 4.4 and 2.3 ODP-MT, respectively (see VI.E and VI.C, respectively), leaving the remainder of the cap available for HCFC-22 production. For 2015-2019, EPA is issuing 21.7% percent of HCFC-22 production baseline, which is approximately 28,000 MT of HCFC-22, as shown in the regulatory text at 82.16(a).

To put the 2015 cap in historical perspective, EPA issued 41,200 MT of HCFC-22 production allowances in 2013, 36,000 MT in 2014, and is only issuing 28,000 MT of HCFC-22 production allowances for each year from 2015-2019.

C. What Is the 2015-2019 HCFC-142b Consumption and Production Allocation?

The 2010-2014 Rule allocated 100 MT of HCFC-142b consumption allowances annually. When EPA re-established HCFC-22 and HCFC-142b baselines in the 2011 Interim Final Rule and 2012-2014 Rule, the HCFC-142b consumption allocation remained at 100 MT. Because the HCFC-142b production baseline was significantly higher than the consumption baseline, and the same percentage of baseline was used for both consumption and production, the production allocation became 463 MT per year in 2011-2014.

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As discussed in the proposed rule, several HCFC manufacturers anticipate continued, albeit decreasing, sales of refrigerant blends containing HCFC-142b in 2015 and later. HCFC-142b is predominantly used in refrigerant blends that have historically served as replacements for CFC-12 and R-500 in medium- and large-sized refrigeration equipment. Some of these blends containing HCFC-142b, particularly R-409A, are in use today, but in small quantities. Because the volumes are very small, EPA does not model servicing need for equipment using these HCFC-142b blends. Refrigerant sales data collected by the California Air Resources Board,²⁵ along with industry feedback, confirm that there is some R-409A equipment still in use. For this reason, EPA proposed to allocate 35 MT of consumption allowances in 2015 with a decrease of 5 MT each year through 2019.

As stated in the proposed rule, a consumption allocation of 35 MT in 2015 is an appropriate balance between the 2010-2014 allocation of 100 MT, the actual consumption of HCFC-142b in recent years, and the reasonable assumption that R-409A is used mainly in retrofitted equipment designed for CFCs that is nearing expected retirement. With an annual decrease of 5 MT, the HCFC-142b allocation would be 15 MT in 2019 before going to zero in 2020. A decreasing allocation sends a stronger market signal that production and import of HCFC-142b are ending, as compared to a constant allocation in all five years. Such a signal will help encourage equipment owners to transition to equipment that uses non-ODS refrigerants, while also providing them with an opportunity and time to select alternatives that are more energy efficient. EPA is finalizing its proposed consumption allocations of 35 MT in 2015, 30 MT in 2016, 25 MT in 2017, 20 MT in 2018, and 15 MT in 2019. HCFC-142b consumption and

²⁵ See *Preliminary 2011 and 2012 Sales and Distribution Data from the California Air Resources Board's Refrigerant Management Program* in the docket.

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production in 2020 will be zero based on EPA's chemical-by-chemical phaseout rule (58 FR 65018).

For production, EPA proposed issuing HCFC-142b production allowances at the same level as consumption, not the same percentage of baseline. Unlike HCFC-22 production, historic exports of HCFC-142b do not indicate a need for additional production allowances to meet export demands. EPA stated that it would consider issuing up to 100 MT of production allowances, even if the final consumption allocation is lower, if there is documented need for United States-produced HCFC-142b in other non-Article 5 countries; however, the agency has not received any such documentation. In this rule, EPA is finalizing its preferred allocation of 35 MT of HCFC-142b production allowances, decreasing by 5 MT per year through 2019.

EPA received five comments related to how it will determine the HCFC-142b allocation. Three comments support EPA's proposal to allocate 35 MT of HCFC-142b consumption allowances in 2015 with a decrease of 5 MT each year. Three commenters support EPA's proposal to issue production allowances at the same level as consumption, asserting that a lower percentage would discourage U.S. production and harm the U.S. economy. One commenter, Arkema, requests that EPA make the percentage allocations for HCFC-142b production allowances the same as the proposed percentage for consumption allowances, which would result in a higher absolute number of production allowances. As proposed, the rule would provide 35 MT of total production allowances, but for some companies, their production allowances would be much lower than their consumption allowances. Arkema argues that an individual company receiving fewer production allowances than consumption allowances would discourage U.S. production of HCFC-142b, resulting in both environmental and economic consequences. Another commenter, CIP, stated during the January 2014 public hearing on the proposed rule

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that they support issuing HCFC-142b allowances only through 2017 (instead of 2019) to enhance good handling, emissions control, and enforcement.

While one commenter recommends going to a three-year approach that stops providing consumption allowances for HCFC-142b in 2018, EPA did not propose that option and believes it may be too rapid for many of the same reasons EPA is not finalizing the 3-year approach for HCFC-22. A three-year approach would be contrary to long standing market expectations and EPA's goal of allowing equipment owners to realize the intended life of their equipment and plan a smooth, thoughtful transition to alternatives.

For production allowances, EPA does not agree that the percent allocations for consumption and production should be the same. The production baseline for HCFC-142b is substantially larger than the consumption baseline because of the baseline transfers made in 2008 and 2009. While one company transferred an equal number of its HCFC-142b baseline consumption and production allowances, a second company did not. As a result, the number of aggregate baseline consumption allowances is about 1/5th the number of aggregate baseline production allowances. Using the same percentage of baseline for HCFC-142b production as for consumption would result in more production allowances than consumption allowances. As discussed above, historic exports of HCFC-142b do not indicate a need for additional production allowances to meet export demands. For more history on these trades, see previous HCFC allocation proposed and final rules available at 76 FR 47451, 77 FR 237, and 78 FR 20004.

To address the commenter's concern that an individual company might not have the desired number of production allowances, EPA notes that it is allocating more HCFC-22 production allowances than consumption allowances. HCFC-22 production allowances can easily be transferred into HCFC-142b production allowances on a calendar-year basis.

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Alternatively, HCFC-142b allowance holders can seek to transfer allowances from another HCFC-142b production allowance holder to their company. Finally, EPA has allocated up to 10 percent of baseline in Article 5 production allowances that can be used to export domestically-produced HCFC-142b. Because of these flexibilities, EPA does not see a need to allocate additional HCFC-142b production allowances and is finalizing its proposed HCFC-142b production allocation of 35 MT in 2015, decreasing by 5 MT per year through 2019.

D. What Is the 2015-2019 HCFC-123 Consumption Allocation?

HCFC-123 is currently used as a refrigerant and as a fire suppression agent, which are the two uses of non-feedstock virgin HCFCs permitted by section 605(a) of the CAA as of January 1, 2015. The agency proposed to issue consumption allowances to allow import for these two uses. For the 2010-2014 regulatory period, EPA issued approximately 2,500 MT of HCFC-123 consumption allowances each year, which is 125% of the HCFC-123 consumption baseline. EPA has never established a production baseline for HCFC-123, and the agency has no record of domestic production of HCFC-123 for refrigeration or fire suppression uses during the baseline years (2005-2007).

As stated in the proposal, section 605(b) of the Clean Air Act restricts production of any class II substance to 100% of baseline levels or less beginning on January 1, 2015. Section 605(c) requires that consumption of class II substances be phased out on the same schedule as production. The agency's reading of 605(b) and 605(c) together is that as of January 1, 2015, EPA may allocate no more than 100 percent of baseline for production or consumption of each class II substance. This milestone is part of the phaseout schedule contained in the CAA. EPA has accelerated the section 605 phaseout schedule for some HCFCs under the authority of section 606. Nevertheless, the 2015 milestone in section 605(b) is still relevant because it applies to each

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class II substance individually. This is in contrast to the basket approach contained in the Montreal Protocol. Under section 614(b), where there is a conflict between Title VI of the CAA and the Montreal Protocol, “the more stringent provision shall govern.” With respect to individual substances, section 605 is more stringent. Thus, for the 2015 control period and beyond, EPA may not allocate more than 100 percent of baseline for any class II substance.

Under the current phaseout regulations, beginning in 2015, production and import of HCFC-123 is limited to servicing of existing refrigeration and air conditioning equipment only. In this rule, EPA is finalizing revisions to section 82.16(d) to allow production and import of HCFC-123 for non-residential, streaming fire suppression applications to complement section 605(a)(4) of the CAA (see section IV.B.3.) This exemption will end on December 31, 2019, because beginning in 2020, Article 2F of the Montreal Protocol restricts production and import of HCFCs to servicing of existing refrigeration and air conditioning equipment.²⁶ While virgin HCFCs can continue to be *used* in fire suppression applications, EPA does not intend to issue consumption allowances for fire suppression after 2019 because of this Montreal Protocol requirement. In addition, beginning January 1, 2020, section 605(a) of the CAA prohibits the use of virgin class II substances in the installation and/or manufacture of air conditioning and refrigeration systems. Any HCFC-123 consumption allowances issued after 2019 would only allow import of HCFC-123 for use as a refrigerant for servicing systems manufactured prior to January 1, 2020.

EPA’s understanding is that much of the HCFC-123 refrigerant use today is to service and manufacture low pressure chillers. Given the expectation that these chillers can last for more than 20 years, EPA sought comment on whether it should provide a static amount of HCFC-123

²⁶ Use of HCFC-123 that was imported prior to 2020, or that is used, recovered and recycled, is still allowed for use in fire suppression beyond January 1, 2020.

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allowances through 2019 at the maximum amount allowed by the CAA (100 percent of baseline), or whether it should begin to gradually reduce HCFC-123 allowances now to foster transition. EPA stated that it preferred to issue 100 percent of the HCFC-123 baseline. This approach would be consistent with the way EPA allocated HCFC-22 and HCFC-142b allowances prior to the 2010 prohibition on manufacturing new HCFC-22 and HCFC-142b appliances.

In considering allocation options, EPA looked at the projected need for virgin HCFC-123 for refrigeration and nonresidential fire suppression uses. EPA's modeled need for each of these uses is presented in the *2013 Servicing Tail Report*. In the proposed rule, EPA sought comment on the remaining refrigerant and fire suppression uses of HCFC-123, how much is needed, and why non-ODS alternatives could not meet this need. Based on data provided during the comment period, EPA provides an updated projection of HCFC-123 need in the *2014 Servicing Tail Report*.

EPA received nine comments regarding its proposed options for issuing HCFC-123 consumption allowances. Four commenters support EPA's preferred option to allocate 100 percent of the HCFC-123 consumption baseline. Two of these commenters assert that there is no commercially available alternative to replace HCFC-123 in low-pressure centrifugal chillers, and one commenter noted that its HCFC-123 alternative development strategy is based on the existing date of transition (2020) and requires significant chiller redesigns. One commenter believes that 100 percent allocation is necessary to support new chillers and those to be serviced in the future, and that allowing continued HCFC-123 allowances may prevent global warming because competitors' products typically use HFC-134a (which has a higher GWP than HCFC-123). One other commenter states that there is no need to decrease the allowances over time to

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ensure a smooth transition as the EPA will have the opportunity to issue allowances post 2019 to allow for servicing of existing equipment.

In an attachment to its comments, AMPAC makes the case for continued HCFC-123 production in 2020 and beyond, requesting that EPA consider an updated ODP of 0.0098 for the purposes of “analysis of environmental impact.” This same commenter urged EPA to consider increasing the HCFC-123 allocation to 120 percent of baseline to provide flexibility in the market and benefits to users and the environment. The commenter states that their projected need for HCFC-123 allowances for nonresidential fire suppression is more than what is proposed in EPA’s preferred allocation and the increased allocation they are recommending still falls well under the Montreal Protocol cap. Specifically, AMPAC believes that within section 605(b) and 605(c), there could be EPA discretion, subject to meeting the HCFC cap, to increase the consumption allowance allocations for HCFC-123 in 2015-2019 beyond the values found in the baseline years (2005-2007). The commenter finds that exercising this discretion is appropriate given that the highest contemplated level of planned allocation of HCFC-22 allowances in the Proposed Rule still results in the U.S. being well below the Montreal Protocol cap. AMPAC also requests that EPA increase HCFC-123 allowances for 2015-2019 by 100 MT to account for higher than initially cited use for fire suppression.

Five other commenters state that EPA’s preferred HCFC-123 allocation is too high. Three of these commenters believe that EPA’s justification for its preferred allocation is deficient because commercially-viable alternatives exist for HCFC-123 in centrifugal chillers, such as Solstice-1233zd(E) (trans-1-chloro-3,3,3-trifluoroprop-1-ene) and HFC-134a. One commenter also noted that they have a chiller using HFC-134a that surpasses industry standards for energy efficiency. This commenter also believes that EPA has made no effort to encourage

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the development and use of alternatives for HCFC-123. Another commenter believes that EPA has given preferential treatment to an ODS that favors one manufacturer in the air conditioning business. Two other commenters support an allocation of less than 100 percent of the consumption baseline to account for recovery and recycling.

The isomer of HCFC-123 that is primarily used in fire suppression has an ODP of 0.02 under long-standing CAA regulations²⁷ and a GWP of 77. While EPA is aware of studies showing a lower ODP for HCFC-123, the specific ODP used for HCFC-123 does not affect the section 605(b) and (c) requirement to limit the production and consumption of each class II substance to at most 100 percent of baseline starting in 2015. The baseline is not ODP-weighted, so a change in the ODP would not change the amount that EPA could allocate. Additionally, the Montreal Protocol uses an ODP of 0.02, so EPA will continue to use that value. HCFC-123 has a lower GWP than some of the refrigerant alternatives available (e.g. HFC-134a with a GWP of 1,430). However, compared to a recently SNAP-listed alternative, Solstice-1233zd(E), HCFC-123 has both a higher ODP (0.02 vs. 0.00024-0.00034) and a higher GWP (77 vs. 4.7-7). Of note, Solstice-1233zd(E) equipment is still being commercialized, but should be available in the future.

EPA is not attempting to favor any type of equipment or any specific company with this allocation as some commenters have suggested. EPA does not have control over the number of manufacturers that use a particular chemical in their equipment. The agency is merely attempting to meet needs for HCFC-123 that are consistent with market projections, while also encouraging transition and the development of non-ODP and low-GWP alternatives.

²⁷ See Appendix B to 40 CFR Part 82 Subpart A.

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Several commenters indicated that allocating 100 percent of baseline is counter to how the agency has handled other HCFCs. In response, EPA notes that handling HCFC-22 and HCFC-142b differently from HCFCs with lower ODPs has been a long-standing agency policy. While EPA could have accelerated the phaseout schedule for HCFC-123 as it did for HCFC-22 and HCFC-142b, it did not. In the 1993 proposed rule, EPA stated that “no change to the statutorily specified timetable would be imposed on HCFC-123 [...] because of [its] substantially shorter lifetime[] and lower ODP[],” (58 FR 15027). EPA continues to believe this logic is appropriate for the HCFC-123 allocation during the 2015-2019 time period. The agency is finalizing a consumption allocation of 2,000 MT, which is 100 percent of baseline, for the years 2015-2019.

Additionally, allocating 100 percent of baseline is consistent with how EPA handled the allocations of HCFC-22 and HCFC-142b prior to 2010. As of January 1, 2010, it became illegal to use virgin HCFC-22 or HCFC-142b in the manufacture of a new appliance. In 2003-2009, EPA allocated 100% of the HCFC-22 and HCFC-142b baselines right up until the prohibition on use in manufacturing took effect. In this final rule, EPA is taking similar action with HCFC-123 by allocating 100 percent of baseline up until the January 1, 2020, ban on using virgin HCFC-123 in the manufacture of appliances takes effect.

There is one important difference between how EPA is allocating allowances for HCFC-123 compared to HCFC-22 and HCFC-142b. In 2003-2009, EPA allocated more HCFC-22 and HCFC-142b consumption than estimated market need. In this rule, EPA is allocating fewer HCFC-123 consumption allowances than the amount of estimated market need. Allocating below EPA’s estimate for market need, combined with the 2020 ban on the manufacture of new HCFC-

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123 appliances, should provide incentive to recover and recycle used refrigerants, as well as to transition to alternative non-ODS refrigerants, all while meeting anticipated market need.

E. What Is the 2015-2019 HCFC-124 Consumption and Production Allocation?

The primary use of HCFC-124 beginning January 1, 2015, will be in refrigerant blends. Though HCFC-124 has sterilant and fire suppression applications that are listed as acceptable under the SNAP program, EPA is adopting only a narrow *de minimis* exemption to the CAA section 605(a) use prohibition for the use of virgin HCFCs as sterilants, and there are no remaining commercial applications of HCFC-124 fire suppression products. Several refrigerant blends with HCFC-124 are listed as acceptable by the SNAP program: R-401A, R-401B, R-409A, R-414A, R-414B, R-416A and others. Given EPA projected some continued use of certain refrigerant blends containing HCFC-124, the agency proposed to issue HCFC-124 allowances in 2015-2019. As mentioned in the proposal, the Servicing Tail Report likely does not capture all current uses of HCFC-124 refrigeration equipment.

EPA proposed to allocate both consumption and production at the level of 200 MT. However, the agency requested comments on a lower allocation of as few as 4 MT of HCFC-124 consumption and production allowances, consistent with the Servicing Tail Report projections. While not the preferred allocation, EPA said it would consider a lower allocation if commenters could provide evidence that the allocation should be that low. Similarly, EPA requested data from commenters in support of allocating up to 400 MT of HCFC-124 consumption and production allowances. The agency also sought comment on the transition or retrofit plans of equipment owners, and for how long they expect to need virgin HCFC-124.

The agency received five comments about the HCFC-124 allocation. Two companies support EPA's proposal to allocate 200 MT of production and consumption allowances; one of

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these commenters believes that 200 MT of consumption and production allowances would allow for continued use of refrigerants containing HCFC-124 while limiting the growth of this market as the industry transitions to non-ODS refrigerants. One commenter believes the agency failed to account for exports in their allocation, and thus allowances should be either 400 MT for production and 200 MT for consumption or 400 MT for both production and consumption, if the agency prefers to allocate the same quantity of production and consumption allowances.

Two commenters do not support the proposed allocation. EIA asserts that EPA's proposal is not based on real demand. EIA states that if the major use for HCFC-124 is as a sterilant blend that will be banned under the CAA in 2015, and the estimated need from the Vintaging Model is so low, without taking into account recovery and reuse of any of the refrigerant nor potential stockpiles, there is no reason to allocate any more production or consumption. NRDC commented that HCFC-124 allowances should not be set higher than 4 MT per year—i.e., the level estimated by the Vintaging Model—to foster markets in recycling and safer alternatives.

Commenters opposed to EPA's preferred allocation of 200 MT cite the Servicing Tail Report and the prohibition on the use of HCFC-124 as a sterilant, combined with the need to encourage recovery and reclamation, as justification for a lower allocation. As EPA stated in the proposal, niche refrigerant blends with low servicing need, like R-409A, are not typically modeled. R-409A is predominantly used as a replacement for CFC-12 and R-500 in medium- and large-sized refrigeration equipment. Included in the docket with the proposed rule is *Preliminary 2011 and 2012 Sales and Distribution Data from the California Air Resources Board's Refrigerant Management Program*. This document shows that in California alone, the amount of HCFC-124 included in blends sold in 2012 totaled more than 40 MT—well above the amount modeled in the Servicing Tail Report. If use were proportional to population, a

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California value of 40 MT would imply approximately 330 MT of HCFC-124 for the entire U.S.

in 2012.²⁸ This level would then be expected to decrease by 2015; a linear decrease from 2012 to zero in 2020 would bring this amount to 206 MT in 2015. Based on these data and comments from stakeholders, allocating an amount lower than 200 MT for consumption throughout the entire U.S. may not meet the servicing need for equipment containing HCFC-124 refrigerant blends. EPA notes that 200 MT is a greater than 90 percent reduction from the 2014 consumption and production allocation levels for HCFC-124. For reference, the 2014 consumption and production allocations are roughly 3,000 MT and 5,000 MT, respectively.

One commenter also requests that EPA increase production allowances to allow for export of HCFC-124. After reviewing recent export data to both Article 5 and non-Article 5 countries, EPA concludes the preferred allocation of 200 MT of production, combined with Article 5 allowances, should provide an adequate amount of flexibility. Article 5 allowances for HCFC-124 will be approximately 400 MT in 2015-2019, ten percent of the aggregate HCFC-124 production baseline. If additional production allowances are needed to allow for export, companies can transfer HCFC-22 production allowances into HCFC-124 production allowances or Article 5 allowances for HCFC-22 into Article 5 allowances for HCFC-124. As discussed in Section VI.B of the preamble, EPA is allocating a greater number of HCFC-22 production allowances than HCFC-22 consumption allowances.

Based on industry feedback and public comments on the needs and uses of HCFC-124, and the use of HCFC-124 consumption allowances in recent years, EPA is finalizing its proposal to allocate 200 MT of HCFC-124 consumption and production allowances each year between 2015 and 2019. EPA's goal is to ensure that servicing needs can be met, while also encouraging

²⁸ Population data from <http://www.census.gov/popest/data/state/totals/2013/index.html>

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recovery and reuse or transition to non-ODS refrigerant blends. An allocation of 200 MT supports this goal.

F. How Is EPA Addressing the End of the HCFC-141b Exemption Program?

The HCFC-141b exemption program has been in place since the start of the HCFC allowance program in 2003. In the preamble to the 2010-2014 Rule, EPA stated that the petition process for HCFC-141b exemption allowances at 40 CFR 82.16(h) would end in 2015, since HCFC-141b is not used as a refrigerant and thus does not meet the criteria established by section 605(a) for continued use. HCFC-141b similarly is not used as a fire suppression agent and therefore would not be covered by the recent modification to CAA section 605(a). EPA proposed to remove the HCFC-141b petition process from 40 CFR 82.16(h) effective January 1, 2015.

EPA received only one comment on HCFC-141b. The commenter supports EPA's proposal to remove the petition process from the regulations, thereby eliminating unnecessary use of HCFC-141b and facilitating a smooth transition to alternatives. The agency is finalizing its proposal to remove the petition process for HCFC-141b exemption allowances at section 82.16(h) from the regulations and is terminating the HCFC-141b exemption allowance program, effective January 1, 2015.

G. Other HCFCs that Are Class II Controlled Substances

EPA has not established baselines or issued allowances for the production or import of HCFCs that are not included in the tables at 40 CFR 82.16(a). The prohibitions in 40 CFR 82.15(a) and (b) on production and import without allowances do not apply to such HCFCs. However, the phaseout schedule in 40 CFR 82.16 applies to all class II substances, whether or not they are governed by the allowance system. Similarly, all class II substances are subject to the restrictions on introduction into interstate commerce and use contained in 40 CFR 82.15(g).

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HCFCs that EPA has listed as class II controlled substances are identified in appendix B to subpart A.

Beginning January 1, 2015, the use of all class II substances is banned, unless specifically exempted (see section IV.B. of this preamble for more details). EPA sought comment on whether any of the HCFCs not governed by the allowance system qualify for the nonresidential fire suppression and/or refrigeration servicing exemptions and what quantity the market would need going forward for these purposes. Should the need for any of these chemicals grow, EPA would consider establishing baselines and allocating calendar-year allowances via a separate rulemaking. EPA received no comments on the production, import, or use of HCFCs not governed by the allocation system.

Also, as proposed, EPA is amending the list of class II controlled substances in appendix B of subpart A to better match the lists in Clean Air Act section 602 and the Montreal Protocol (Group I, Annex C). Both the Protocol and CAA section 602 include all isomers of listed substances, but 40 CFR part 82, subpart A, appendix B has not included all isomers, only those that are specifically named (e.g., HCFC-141b is listed as such, but there are other isomers of HCFC-141b, namely HCFC-141 and HCFC-141a, that are not included in appendix B).

CAA section 602 states that EPA “shall publish” a list of class II substances that shall include the specified HCFCs and “shall also include the isomers” of those substances. EPA’s intent was to list all isomers in appendix B, as indicated by the footnote explaining that when a range of ODPs is listed for a chemical, the range applies to an isomeric group. EPA proposed a change to correct this omission and did not receive any adverse comment. Therefore, EPA is reconciling the statutory and Montreal Protocol lists with the list in the regulations by adding a

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footnote to 40 CFR part 82 subpart A appendix B stating that the appendix includes all isomers of a listed chemical, even if the isomer itself is not listed on its own.

VII. Other Adjustments to the HCFC Allocation System

A. What Is EPA's Response to Comments on Dry-shipped HCFC-22 Condensing Units?

Condensing units are a type of component in split system air conditioners. Under current regulations, the sale or distribution of a condensing unit pre-charged with HCFC-22 is prohibited (40 CFR 82 subpart I); however, a dry-shipped unit may be sold and used to repair an existing system that uses HCFC-22 as the refrigerant. In February 2011, the Carrier Corporation sent a letter to EPA asking the agency to ban this particular type of repair. In the proposed rule providing 2012-2014 HCFC-22 allocations (77 FR 237, January 4, 2013), EPA took comment on whether repairs using dry-shipped condensing units affect the phaseout of HCFC-22. The agency received numerous comments, and responded to them in the 2012-2014 Rule. While many comments discussed dry-shipped condensing units, very few provided EPA any additional data or information to indicate that repairs using condensing units affect the HCFC phaseout. In the proposed rule to today's action the agency again sought quantifiable information on the number of dry-shipped condensing units being shipped, whether they are being used as a repair in lieu of a compressor or motor replacement, and whether and to what extent condensing unit replacements extend the life of an existing system. Most comments focused on the merits of banning or not banning the manufacture, sale, or installation of dry-shipped condensing units. That action is beyond the scope of this rulemaking. While EPA did not propose a ban on dry-shipped condensing units in the 2015-2019 proposal, the agency is summarizing and responding to comments on dry-shipped units in the *Response to Comments* found in the docket.

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EPA's purpose in requesting comment on this topic was to gain additional data. Since the agency did not receive quantifiable data, particularly on the number of dry-shipped HCFC-22 condensing units shipped in the past several years, EPA intends to exercise its authority under CAA section 114 to collect additional information in order to confirm shipment trends between January 1, 2008, and January 1, 2015. After reviewing this data, EPA intends to consider whether additional regulatory action is appropriate to meet the goals of CAA Title VI.

B. How Is EPA Treating Requests for Additional Consumption Allowances in 2020 and Beyond?

The regulations at 82.20(a) allow a person to obtain consumption allowances equivalent to the quantity of class II controlled substances that the person exported during the control period, provided that the substances were originally produced or imported with consumption allowances. The exporter must submit certain information to EPA which the agency reviews before either granting or denying the request for additional consumption allowances.

Historically, a person could submit this request (known as a Request for Additional Consumption Allowances, or RACA) upon *export* of any HCFC for which consumption allowances were originally expended, regardless of what control period the production or import took place.

EPA proposed to modify the RACA regulations in light of the approaching phaseout deadlines for certain HCFCs. For example, consider 1,000 kg of HCFC-22 that is produced in 2019 using consumption and production allowances. Under the previous regulations, in 2020 or later, that material could be exported and that exporter would have been eligible to request 1,000 additional HCFC-22 consumption allowances. However, there will not be any consumption allowances for HCFC-22 in 2020 or subsequent years. Therefore, the agency proposed to clarify the RACA regulations.

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Specifically, EPA proposed to add the requirement that both the export and the request for additional consumption allowances must occur in a year in which consumption allowances were issued. Such clarifying language about RACA eligibility already exists for class I controlled substances. EPA did not receive any adverse comments on this clarification and is finalizing the proposed text at 82.20(a).

The agency did receive one comment from the Alliance for Responsible Atmospheric Policy supporting EPA's proposal to not issue any additional consumption allowances after consumption of a particular chemical has been entirely phased out. The Alliance also stated that it supports requiring the export of HCFCs and the request for additional consumption allowances to occur in the same year as the consumption allowances were expended. EPA is clarifying here that use of consumption allowances to produce or import HCFCs may still occur in one year, with export and the RACA occurring in a subsequent year, so long as export and the RACA occur in a year prior to the complete phaseout of that particular HCFC.

C. What Is EPA's Response to Comments on Maximizing Compliance with HCFC Regulations?

In the proposed rule, EPA requested comments and suggestions for ensuring compliance with HCFC regulations. The 2015 stepdown and the approaching phaseout of HCFC-22 may affect prices, which could increase the incentive for illegal activity, particularly illegal imports of HCFCs or HCFC blends. On the other hand, the agency believes that reduced allocations and market changes increasing the value of the material will encourage proper recovery and decrease motivation to vent HCFCs, especially HCFC-22. EPA sought comment on how it could alter existing regulations to encourage compliance with the HCFC phaseout requirements and section 608 refrigerant regulations. In addition, the agency was interested in ways it could increase

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awareness and ensure compliance with the section 605(a) use restrictions and the section 611 labeling requirements that will begin in 2015.

EPA received nine comments providing suggestions on how the agency can maximize compliance with HCFC regulations. Several commenters suggested increased educational efforts on regulatory requirements and the consequences of non-compliance for distributors, contractors, and homeowners. Other commenters asserted that the best way to maximize compliance is to bolster the reclamation industry.

Two commenters noted the importance of addressing illegal trade, especially as the availability of HCFC-22 declines. One commenter suggested increasing the efficiency of the current import and export documentation practices by either requiring electronic transfer/acceptance of documents prior to shipments arriving at the port/border or by creating a license system for HCFC imports similar to what already exists in some countries.

Other suggestions for maximizing compliance with HCFC regulations include: implementing additional recordkeeping requirements for contractors, similar to those of system owners; reducing leak rate requirements from the current 35% per year and reducing the size of the systems subject to recordkeeping and leak rate requirements to below 50 lbs.; returning to the excise tax that was used for CFCs during its phaseout; establishing a system for regulating the venting of appliances and residential units during maintenance and installation; and enforcing a fixed price support that can provide incentives to contractors for recovery and provide stability and sufficient volume to support the reclamation industry.

EPA appreciates stakeholders' thoughts on ways to maximize compliance with the HCFC regulations. With respect to educational materials, EPA has several guidance documents and FAQs on HCFC-22 on its website at: <http://www.epa.gov/ozone/title6/phaseout/classtwo.html>, as

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well as guidance on labeling requirements, found in the docket and at:

<http://www.epa.gov/ozone/title6/labeling>. In addition, EPA has a list of previous enforcement actions on its website at: <http://www.epa.gov/ozone/enforce>. The agency also encourages stakeholders to share any of this information with their clients, members, or fellow industry stakeholders.

The agency also is committed to preventing illegal trade of HCFCs, and works closely with colleagues at Customs and Border Protection (CBP), as well as Homeland Security Investigation (HSI). In addition, EPA is participating in the greater International Trade Data System (ITDS) initiative to leverage the benefits of a single-window Automated Commercial Environment (ACE). The transition to broker import filings in ACE is expected to play an important role in EPA's ability to proactively examine data associated with imports of HCFCs. For more information see <http://www.itds.gov/xp/itds/toolbox/background/background.xml> and CBP's Federal Register Notice from December 2013 on the ODS ITDS pilot (78 FR 75931). Under this pilot, "pre-approved importers" will be automatically checked and their imports released. This helps ensure compliance with import regulations, while expediting the import process. EPA notes the greater ITDS efforts should address some of the issues raised by the commenter suggesting EPA restructure the import and export documentation requirements.

The agency is appreciative of the other recommendations submitted by commenters and will consider whether it is appropriate for the agency to take additional regulatory action.

VIII. Modifications to Section 608 Regulations

The portion of the stratospheric ozone regulations titled *Recycling and Emissions Reduction* (40 CFR 82 subpart F) contains requirements promulgated under CAA section 608. The requirements under section 608 are intended to reduce emissions of class I and class II

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refrigerants and their substitutes to the lowest achievable level by, among other things, designing standards for the use of refrigerants during the service, maintenance, repair, and disposal of appliances. (See 40 CFR 82.150).

To support this goal, EPA is finalizing several updates to its reclamation requirements. Specifically, EPA is finalizing its proposal (1) to require a reclaimer to notify EPA when there is a change in business management, location, or contact information and (2) to require disaggregated information for all reclaimed refrigerants as part of the annual reporting. EPA is not finalizing its proposed incorporation by reference of AHRI 700-2012 at this time due to the ongoing review of the standard by a joint ASHRAE and AHRI research group.

A. Overview of Current Reclamation Standards

Recovered refrigerant often contains contaminants, including air, water, particulates, acids, chlorides, high boiling residues, and other impurities. Reclamation is the re-processing and upgrading of a recovered controlled substance through such mechanisms as filtering, drying, distillation, and chemical treatment in order to restore the substance to a specified standard of performance. EPA's definition of reclaim at 40 CFR 82.152 refers to specifications in appendix A to 40 CFR part 82, subpart F that are based on ARI Standard 700-1995, *Specification for Fluorocarbons and Other Refrigerants*. A used refrigerant may not be sold, distributed or offered for sale or distribution, unless certain requirements have been met; one such set of requirements provides in part that the used refrigerant must be reclaimed to the purity level specified by the regulations and its purity must be verified (see 40 CFR 82.154(g)(1)).

Additionally, reclamation companies must meet certain EPA certification requirements to become a reclaimer and must satisfy recordkeeping and reporting requirements, including

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reporting annually on the amount of ODS refrigerant that they reclaim (see 40 CFR 82.164 and 82.166(g-h)).

B. Benefits of Reclamation

Proper recovery, recycling or reclamation, and reuse of HCFC-22 and other ODS refrigerants is an essential component of stratospheric ozone protection. Refrigerant reuse is preferable to venting or destruction. Recovery and reuse reduces emissions of HCFCs to the atmosphere. Reuse also reduces the amount of virgin material that needs to be produced. Section 608(c) of the CAA contains certain prohibitions on knowingly venting or releasing HCFCs during maintenance, service, repair, or disposal of an appliance and EPA regulations require that HCFCs be recovered during service or disposal of appliances (see 40 CFR 82.154 and 82.156).

Recovery and reuse is becoming increasingly important as the United States continues its progress in the phaseout of ODS. As discussed earlier in this preamble, EPA is reducing the number of HCFC-22 consumption allowances provided in 2015 by almost 60 percent relative to 2014. Reclamation will continue to be a key component of a smooth transition from HCFC-22 to non-ODS alternatives.

C. What Regulatory Changes Is EPA Finalizing Under CAA Section 608?

1. Consideration of AHRI 700-2012 Standards

In the proposed rule, EPA sought comment on revising the reclamation standards in appendix A of 40 CFR subpart F to incorporate by reference the current version of the ARI (now AHRI) Standard 700-2012, including addenda added in August 2008 and August 2012 (*AHRI 700C-2008: Appendix C to AHRI Standard 700-Analytical Procedures for AHRI Standard 700-06* and *AHRI 700D-2012: Appendix D Gas Chromatograms for AHRI Standard 700-2012-Informative*, all three of which are included in the docket). While EPA would prefer to update the

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standards to use the most current industry best practices, the agency is not finalizing its proposal to incorporate the AHRI 700-2012 standard at this time because of concerns about the 40 ppm limit for unsaturated contaminants (unsaturates).

EPA received ten comments related to the adoption of AHRI Standard 700-2012. Six comments oppose the adoption of AHRI Standard 700-2012 at this time, stating that the specification of 40 ppm limit for unsaturates will cause undue hardship to the reclamation industry since most reclaimers do not have the capability to detect contamination at this level. One comment opposing the change is signed by ten companies. Commenters also note that studies and testing are ongoing and EPA should wait until they are complete before adopting the new standard to ensure the unsaturates limit is appropriate for HVACR equipment performance. One commenter believes that any new standard will need to be phased in over a five-year period to give companies ample time to adapt. Another commenter recommends that reclaimed refrigerant collected and processed in the U.S. that is not mixed or blended with new refrigerants be exempt from the unsaturates specification in the AHRI Standard 700-2012. The commenter notes that a significant quantity of reclaimed refrigerant that would have passed the previous AHRI standard would fail this new standard.

Five commenters support the adoption of AHRI Standard 700-2012, stating that it reflects the most up to date testing procedures which have already been recognized and adopted by the industry since 2006. Two commenters strongly recommend that EPA institute a process by which it will adopt future versions of the AHRI standard in a timely manner. Since an AHRI and ASHRAE joint research project has not yet concluded its assessment of the appropriateness of the 40 ppm limit for unsaturates, EPA is not finalizing its proposed revision to appendix A and the definition of “reclaim” at this time. Once the research project, *Effect of Unsaturated*

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Fluorocarbon Contaminates on the Reliability and Performance of HVACR Equipment, is completed, EPA will reassess how to proceed.

2. Notification to EPA of Changes to Business Management, Location, or Contact Information

Reclaimer certification does not transfer when there is a change in ownership. Section 40 CFR 82.164(f) requires the new owner of the reclamation company to certify with EPA within thirty days of the change of ownership; however, there are no provisions that a reclamation company must notify EPA of changes in business management, location, or contact information for the refrigerant manager who communicates with EPA. EPA believes that notification of changes in business information would improve accountability and benefit reclaimers in the long run. Without accurate information, EPA may not be able to communicate with a reclaimer in a timely manner. Additionally, as a benefit to the public, the agency wants to ensure that its website listing certified reclaimers and their contact information is accurate. All of the comments received on the proposed change were supportive, EPA is finalizing its proposal to require notification from the reclaimer when there is a change in business management, location, or contact information. The change will appear at 40 CFR 82.164(f).

3. Reporting and Recordkeeping Requirements

Currently, 40 CFR 82.166(h) requires that reclaimers, on an annual basis, report how much material was received for reclamation, the mass of refrigerant reclaimed, and the mass of waste product generated as a result of reclamation activities. However, the regulations do not clearly state that reported information must be broken down by refrigerant type. Some reclaimers do submit information broken down by refrigerant, and EPA typically asks for refrigerant-specific information when it is not provided. EPA uses this information as part of its review of refrigerant supply to help ensure the continued smooth transition out of ODS refrigerants. The

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agency believes it is essential for EPA and the public to have accurate information concerning the amounts of specific types of refrigerants that are available from reclaimers for reuse.

All comments received on the proposal were supportive of EPA's proposed change. EPA is finalizing its proposal to require disaggregated information for all reclaimed refrigerants as part of the annual reporting. The revision will appear at 40 CFR 82.166(h). The agency believes that this proposed change will clarify what information it needs from reclaimers up front, and will alleviate the need for additional back-and-forth between EPA and reclamation companies that in the past were not submitting refrigerant-specific data, thereby potentially reducing burden associated with reporting for those companies.

4. Other Section 608 Reclamation Program Options

EPA also sought comment on whether the agency should initiate a rulemaking that would require (1) reporting of inventory information from reclaimers and on the possibility of future reporting and recordkeeping changes that would help minimize emissions and facilitate a smooth transition away from ODS, (2) a more robust reclaimer certification application, and (3) expanded end product testing. EPA appreciates the diverse comments that were received and will consider those comments as it determines whether to take additional action in future.

5. Other Issues Related to Section 608's National Recycling and Emissions Reduction Program

EPA also received a comment in support of a petition that EPA recently received from the Alliance dated January 31, 2014, requesting that the agency initiate rulemaking to extend the section 608 refrigerant management regulations to hydrofluorocarbons (HFCs) and other substitutes for class I and class II ODS. The Alliance cites section 608(c)(2) of the CAA as authority. While action on this petition is beyond the scope of this rulemaking, EPA is actively

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considering the merits and environmental benefits of this petition under a separate process. A copy of the petition is included in the docket for this rulemaking as a reference.

IX. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563:

Improving Regulation and Regulatory Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is a “significant regulatory action” since it raises “novel legal or policy issues.” Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011) and any changes made in response to OMB recommendations have been documented in the docket for this action.

EPA did not conduct a specific analysis of the benefits and costs associated with this particular action because many previous analyses provide a wealth of information on the costs and benefits of the United States ODS phaseout, and specifically the HCFC phaseout:

- The 1993 *Addendum to the 1992 Phaseout Regulatory Impact Analysis: Accelerating the Phaseout of CFCs, Halons, Methyl Chloroform, Carbon Tetrachloride, and HCFCs.*
- The 1999 Report *Costs and Benefits of the HCFC Allowance Allocation System.*
- The 2000 Memorandum *Cost/Benefit Comparison of the HCFC Allowance Allocation System.*
- The 2005 Memorandum *Recommended Scenarios for HCFC Phaseout Costs Estimation.*
- The 2006 ICR *Reporting and Recordkeeping Requirements of the HCFC Allowance System.*
- The 2007 Memorandum *Preliminary Estimates of the Incremental Cost of the HCFC*

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Phaseout in Article 5 Countries.

- The 2007 Memorandum *Revised Ozone and Climate Benefits Associated with the 2010 HCFC Production and Consumption Stepwise Reductions and a Ban on HCFC Pre-charged Imports.*

A memorandum summarizing these analyses is available in the docket.

B. Paperwork Reduction Act

This action does not impose any new information collection burden. The Office of Management and Budget (OMB) has previously approved the information collection requirements contained in the existing regulations at 40 CFR part 82, subpart A under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. and has assigned OMB control number 2060-0498.

While this rule modifies the recordkeeping and reporting regulations, it does not increase the information collection burden. The changes are as follows: (1) requiring reclaimers to provide updated contact information and (2) requiring reclaimers to provide the amount of each refrigerant reclaimed in their annual reporting. These changes reflect customary business practices and therefore do not affect information collection burden. In both of these cases, EPA is modifying the regulations so they align with current practices. EPA has posted to the docket and submitted to OMB completed an Information Collection Request (ICR) Change Worksheet, documenting the changes and their non-effect on the collection burden. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9.

C. Regulatory Flexibility Act (RFA)

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking

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requirements under the Administrative Procedure Act or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this rule on small entities, a small entity is defined as: (1) a small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field. This action will potentially affect the following categories:

- Industrial Gas Manufacturing entities (NAICS code 325120), including fluorinated hydrocarbon gas manufacturers and reclaimers;
- Other Chemical and Allied Products Merchant Wholesalers (NAICS code 424690), including chemical gases and compressed gases merchant wholesalers;
- Air-Conditioning and Warm Air Heating Equipment and Commercial and Industrial Refrigeration Equipment Manufacturing entities (NAICS code 333415), including air-conditioning equipment and commercial and industrial refrigeration equipment manufacturers;
- Air-Conditioning Equipment and Supplies Merchant Wholesalers (NAICS code 423730) , including air-conditioning (condensing unit, compressors) merchant wholesalers;

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- Electrical and Electronic Appliance, Television, and Radio Set Merchant Wholesalers (NAICS code 423620), including air-conditioning (room units) merchant wholesalers;
- Plumbing, Heating, and Air-Conditioning Contractors (NAICS code 238220), including Central air-conditioning system and commercial refrigeration installation, HVACR contractors;
- Refrigerant reclaimers, manufacturers of recovery/recycling equipment, and refrigerant recovery/recycling equipment testing organizations;
- Fire Extinguisher Chemical Preparations Manufacturing (325998); Portable Fire Extinguishers Manufacturing (339999); Other Aircraft Parts and Auxiliary Equipment Manufacturing (336413);
- Surgical Appliance and Supplies Manufacturing (339113); Ophthalmic goods manufacturing (339115); General Medical and Surgical Hospitals (622110); Specialty (Except Psychiatric and Substance Abuse) Hospitals (622310);
- Entities Performing Solvent Cleaning, (including but not necessarily limited to NAICS subsector codes 332 and 335).

After considering the economic impacts of today's final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant adverse economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives "which minimize any significant economic impact of the rule on small entities." 5 USC 603 and 604. Thus, an agency may certify that a rule will not have a

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significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule.

Without allowances for the 2015-2019 regulatory period, existing regulations would prohibit the production and import of HCFCs. Since the direct result of this final action is to allocate HCFC allowances for production and import, thereby relieving a prohibition, the direct effects of this final decision are not a potential burden to small business. EPA's HCFC Phaseout Benefits and Costs Memo, included in the docket for this rulemaking, provides a summary of previous small business analyses. Though EPA certified in the proposal that this rulemaking would not have a significant impact on a substantial number of small entities, EPA completed an economic screening analysis prior to development of this final rule, titled, "Economic Impact Screening Analysis for Proposed Adjustments to the Allowance System for Controlling HCFC Production, Import and Export" (Screening Analysis). EPA's Screening Analysis, which is available in the docket, shows that the HCFC allocation for 2015-2019 is expected to have a net economic benefit to the small businesses that are directly impacted by this rulemaking. Therefore, EPA continues to believe that this rulemaking does not have a significant impact on a substantial number of small entities.

Although this final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on small entities. The agency is also aware that there is substantial interest in this rule among small entities, particularly recovery and reclamation companies and HVACR distributors and wholesalers. In light of this interest, on January 31, 2014, one week after the January 23 public hearing, EPA participated in a Small Business Administration Environmental Roundtable on the

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proposed HCFC-22 allocation options and discussed the proposal with small business attendees.

The presentation from that roundtable is available in the docket. As explained during the roundtable, if a small entity will have obligations imposed on them *directly* by the rule then the potential impact on those small entities should be included in the RFA screening analysis. The direct effect of this rulemaking is to issue allowances that allow for continued production and import of a salable commodity. Allowances for production and import of four HCFCs in 2015-2019 are being issued to baseline allowance holders, including both large and small businesses.

The January 31 roundtable had approximately 20 participants, representing both small and large businesses. The small businesses in attendance did not have a uniform position on the size of the HCFC-22 allocation. Some spoke in support of a zero allocation; other small businesses or organizations representing small businesses spoke out against a zero allocation, stating the importance of market certainty and a continued HCFC-22 allocation for their business planning needs.

EPA received two written comments on the RFA. One commenter stated that RFA and SBREFA issues have not been met because the agency's statement that this action does not have a significant economic impact on a substantial number of small entities applies to allowance holders. The commenter writes, "this rule alters or changes other elements of 40 CFR Title VI, Section 608 and 609." EPA assumes the commenter meant 40 CFR part 82, and is then referring to Clean Air Act Title VI, specifically sections 608 and 609. EPA is not taking any action under CAA section 609 in this rulemaking. EPA is finalizing two minor changes to recordkeeping and reporting provisions in 40 CFR part 82 subpart F under the authority of CAA section 608; however, these changes do not increase burden and may in fact lessen burden on small reclamation businesses by ensuring that businesses that have already reported do not have to

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spend additional time responding to follow-up requests from EPA. These changes also ensure that EPA can reach businesses in a timely manner with any necessary information.

The other commenter claims that EPA has not given due diligence to its obligations under the RFA to ensure that the rule does not inflict undue financial burden on small businesses. As explained above, the direct result of this final action is to allocate HCFC allowances for production and import, thereby relieving a prohibition; thus, the direct effects of this final decision are not a potential burden to small business. EPA explains the considerations and rationale for its final HCFC-22 consumption allocation in section VI.A. of this preamble.

I have therefore concluded that today's final rule will relieve regulatory burden for directly affected small entities.

D. Unfunded Mandates Reform Act

This action contains no Federal mandates under the provisions of Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531-1538 for State, local, or tribal governments or the private sector. UMRA does not apply to rules that are necessary for the national security or the ratification or implementation of international treaty obligations. This rule implements the 2015 milestone for the phase-out of HCFCs under the Montreal Protocol. Therefore, this action is not subject to the requirements of sections 202 or 205 of the UMRA.

This action is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. This action apportions production and consumption allowances and establishes baselines for private entities, not small governments.

E. Executive Order 13132: Federalism

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This action does not have federalism implications. It does not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132. This action is expected to primarily affect producers, importers, and exporters of HCFCs. Thus, Executive Order 13132 does not apply to this action.

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicited, but did not receive, comment from State and local officials on this issue.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). This action does not significantly or uniquely affect the communities of Indian tribal governments. It does not impose any enforceable duties on communities of Indian tribal governments. Thus, Executive Order 13175 does not apply to this action.

Although Executive Order 13175 does not apply to this action, EPA participated in a National Tribal Air Association conference call hosted by EPA regarding EPA air policy. EPA provided a summary of the proposed rule, the importance of protecting and restoring the stratospheric ozone layer, and how the 2015-2019 rule would further the goals of the HCFC phaseout. EPA provided contact information and offered to answer any specific questions following the call or at any point in the future.

G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks

This action is not subject to EO 13045 (62 F.R. 19885, April 23, 1997) because it is not economically significant as defined in EO 12866. The agency nonetheless has reason to believe

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that the environmental health or safety risk addressed by this action may have a disproportionate effect on children. Depletion of stratospheric ozone results in greater transmission of the sun's ultraviolet (UV) radiation to the earth's surface. The following studies describe the effects of excessive exposure to UV radiation on children: (1) Westerdahl J, Olsson H, Ingvar C. "At what age do sunburn episodes play a crucial role for the development of malignant melanoma," *Eur J Cancer* 1994; 30A: 1647-54; (2) Elwood JM Japson J. "Melanoma and sun exposure: an overview of published studies," *Int J Cancer* 1997; 73:198-203; (3) Armstrong BK, "Melanoma: childhood or lifelong sun exposure," In: Grobb JJ, Stern RS Mackie RM, Weinstock WA, eds. "Epidemiology, causes and prevention of skin diseases," 1st ed. London, England: Blackwell Science, 1997: 63-6; (4) Whiteman D., Green A. "Melanoma and Sunburn," *Cancer Causes Control*, 1994: 5:564-72; (5) Heenan, PJ. "Does intermittent sun exposure cause basal cell carcinoma? A case control study in Western Australia," *Int J Cancer* 1995; 60: 489-94; (6) Gallagher, RP, Hill, GB, Bajdik, CD, et. al. "Sunlight exposure, pigmentary factors, and risk of nonmelanocytic skin cancer I, Basal cell carcinoma," *Arch Dermatol* 1995; 131: 157-63; (7) Armstrong, DK. "How sun exposure causes skin cancer: an epidemiological perspective," *Prevention of Skin Cancer*. 2004. 89-116.

This action implements the commitment of the United States to reduce the production and import of HCFCs under the Montreal Protocol. While on an ODP-weighted basis, this is not as large a step as previous actions, such as the 1996 class I phaseout, it is one of the most significant remaining actions the United States can take to complete the overall phaseout of ODS and further decrease impacts on children's health from stratospheric ozone depletion. The final HCFC consumption allocation for 2015 is more than 95 percent below the United States HCFC baseline, decreasing further through 2019.

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H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution, or Use

This action is not a “significant energy action” as defined in Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The rule issues allowances for the production and consumption of HCFCs.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (“NTTAA”), Public Law No. 104-113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

The proposed rule involved technical standards because EPA proposed to incorporate by reference AHRI Standard 700-2012 *Specification for Fluorocarbons and Other Refrigerants* and its appendices. The proposed standard is an updated version of the standard contained in the current regulations. The agency is not finalizing its proposal to update the standard, therefore, this final rule does not involve any technical standards.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order (EO) 12898 (59 FR 7629, Feb. 16, 1994) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest

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extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this action will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations. The 2015 phaseout step increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population. This action implements the commitment of the United States to reduce the production and import of HCFCs under the Montreal Protocol. While on an ODP-weighted basis, this is not as large a step as previous actions, such as the 1996 class I phaseout, it is one of the most significant remaining actions the United States can take to complete the overall phaseout of ODS and further lessen the adverse human health effects for the entire population. The final HCFC consumption allocation for 2015 is more than 95 below the United States HCFC consumption baseline, outperforming the requirements set by the Montreal Protocol and Title VI of the Clean Air Act.

The agency did receive two comments pertaining to this executive order. The National Association for the Advancement of Colored People (NAACP) states that climate change has a disproportionate impact on communities of color in the United States and around the world. NAACP supports efforts to eliminate chemicals that have dangerous or damaging effects on our communities, and points to both the ozone depleting potential and global warming potential of HCFCs. NAACP asks to be included during the drafting of the 2015-2019 final rule. The other commenter, New Era Group, Inc., believes that EPA blocks organizations such as the NAACP

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from engaging on this issue and states that climate change is a significant issue for minorities and people of color.

As part of the 2009 Endangerment Finding under CAA section 202(a)(1),²⁹ the Administrator considered climate change risks to minority or low-income populations, finding that certain parts of the population may be especially vulnerable based on their circumstances. These include the poor, the elderly, the very young, those already in poor health, the disabled, those living alone, and/or indigenous populations dependent on one or a few resources. The Administrator placed weight on the fact that certain groups, including children, the elderly, and the poor, are most vulnerable to climate-related health effects.

Since HCFCs are ozone depleting substances and also greenhouse gases that can contribute to climate change, the agency takes seriously its mandate to phase out production and import of these substances. In fact, this rulemaking far outperforms domestic and international caps on U.S. HCFC production. In addition, both stratospheric ozone depletion and climate change are global issues. That is, the impact of HCFC emissions on stratospheric ozone or atmospheric greenhouse concentrations is independent of where the HCFCs were used or eventually emitted. The agency discusses the environmental implications of the chosen HCFC-22 allocation levels in section VI.A. of this preamble. The agency appreciates NAACP's comment, and invited representatives from NAACP to meet with EPA while developing this final rule.

K. Congressional Review Act

²⁹ "Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act," 74 Fed. Reg. 66,496 (Dec. 15, 2009) ("Endangerment Finding").

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The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take

Protection of Stratospheric Ozone: Adjustments to the Allowance System for Controlling HCFC Production, Import, and Export (Page 120 of 134)

effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A Major rule cannot take effect until 60 days after it is published in the Federal Register. This action not a “major rule” as defined by 5 U.S.C. 804(2). This rule will be effective January 1, 2015.

List of Subjects in 40 CFR Part 82

Environmental protection, Administrative practice and procedure, Air pollution control, Chemicals, Exports, Hydrochlorofluorocarbons, Imports

Dated:

Gina McCarthy,

Administrator.

For the reasons stated in the preamble, 40 CFR part 82 amended as follows:

PART 82-PROTECTION OF STRATOSPHERIC OZONE

1. The authority citation for part 82 continues to read as follows:

Authority: 42 U.S.C. 7414, 7601, 7671– 7671q.

Subpart A—Production and Consumption Controls

2. Amend § 82.3 by adding the definition of “Use of a class II controlled substance” to read as follows:

§ 82.3 Definitions for class I and class II controlled substances.

* * * * *

Use of a class II controlled substance, for the purposes of 82.15 of this subpart, includes but is not limited to, use in a manufacturing process, use in manufacturing a product, intermediate uses such as formulation or packaging for other subsequent uses, and use in maintaining, servicing, or repairing an appliance or other piece of equipment. Use of a class II controlled substance also includes use of that controlled substance when it is removed from a container used for the transportation or storage of the substance but does not include use of a manufactured product containing a controlled substance.

* * * * *

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3. Amend § 82.15 by redesignating paragraph (g)(4) as (g)(4)(i), and revising the newly designated paragraph (g)(4)(i), and adding paragraphs (g)(4)(ii) and (iii) to read as follows:

§ 82.15 Prohibitions for class II controlled substances.

(g) * * *

(4)(i) Effective January 1, 2015, no person may introduce into interstate commerce or use any class II controlled substance not governed by paragraphs (g)(1) through (3) of this section (unless used, recovered and recycled) for any purpose other than for use in a process resulting in its transformation or its destruction; for use as a refrigerant in equipment manufactured before January 1, 2020; for use as a fire suppression streaming agent listed as acceptable for use or acceptable subject to narrowed use limits for nonresidential applications in accordance with the regulations at subpart G of this part; for export to Article 5 Parties under § 82.18(a); as a transshipment or heel; for exemptions permitted under paragraph (f) of this section; or for exemptions permitted under paragraph (g)(4)(ii) or (iii) of this section.

(ii) Effective January 1, 2015, use of HCFC-225ca or HCFC-225cb as a solvent (excluding use in manufacturing a product containing HCFC-225ca or HCFC-225cb) is not subject to the use prohibition in paragraph (g)(4)(i) of this section if the person using the HCFC-225ca or HCFC-225cb placed the controlled substance into inventory before January 1, 2015. This paragraph does not create an exemption to the prohibition on introduction into interstate commerce in paragraph (g)(4)(i) of this section.

(iii) Effective January 1, 2015, use of HCFC-124 as a sterilant for the manufacture and testing of biological indicators is not subject to the use prohibition in paragraph (g)(4)(i) of this section if the person using the HCFC-124 placed the controlled substance into inventory before January 1,

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2015. This paragraph does not create an exemption to the prohibition on introduction into interstate commerce in paragraph (g)(4)(i) of this section.

* * * * *

4. Amend § 82.16 by revising paragraphs (a), (d) and (e) and removing and reserving paragraph (h) to read as follows:

§ 82.16 Phaseout schedule of class II controlled substances.

(a) *Calendar-year Allowances.* (1) In each control period as indicated in the following tables, each person is granted the specified percentage of baseline production allowances and baseline consumption allowances for the specified class II controlled substances apportioned under § § 82.17 and § 82.19:

Calendar-year HCFC Production Allowances

Control Period	Percent of HCFC-141b	Percent of HCFC-22	Percent of HCFC-142b	Percent of HCFC-123	Percent of HCFC-124	Percent of HCFC-225ca	Percent of HCFC-225cb
2003	0	100	100	--	--	--	--
2004	0	100	100	--	--	--	--
2005	0	100	100	--	--	--	--
2006	0	100	100	--	--	--	--
2007	0	100	100	--	--	--	--
2008	0	100	100	--	--	--	--
2009	0	100	100	--	--	--	--
2010	0	41.9	0.47	0	125	125	125
2011	0	32.0	4.9	0	125	125	125
2012	0	17.7	4.9	0	125	125	125

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2013	0	30.1	4.9	0	125	125	125
2014	0	26.1	4.9	0	125	125	125
2015	0	21.7	0.37	0	5.0	0	0
2016	0	21.7	0.32	0	5.0	0	0
2017	0	21.7	0.26	0	5.0	0	0
2018	0	21.7	0.21	0	5.0	0	0
2019	0	21.7	0.16	0	5.0	0	0

Calendar-year HCFC Consumption Allowances

Control Period	Percent of HCFC-141b	Percent of HCFC-22	Percent of HCFC-142b	Percent of HCFC-123	Percent of HCFC-124	Percent of HCFC-225ca	Percent of HCFC-225cb
2003	0	100	100	--	--	--	--
2004	0	100	100	--	--	--	--
2005	0	100	100	--	--	--	--
2006	0	100	100	--	--	--	--
2007	0	100	100	--	--	--	--
2008	0	100	100	--	--	--	--
2009	0	100	100	--	--	--	--
2010	0	41.9	0.47	125	125	125	125
2011	0	32.0	4.9	125	125	125	125
2012	0	17.7	4.9	125	125	125	125
2013	0	18.0	4.9	125	125	125	125
2014	0	14.2	4.9	125	125	125	125
2015	0	7.0	1.7	100	8.3	0	0

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2016	0	5.6	1.5	100	8.3	0	0
2017	0	4.2	1.2	100	8.3	0	0
2018	0	2.8	1.0	100	8.3	0	0
2019	0	1.4	0.7	100	8.3	0	0

* * * * *

(d) Effective January 1, 2015, no person may produce class II controlled substances not previously controlled for any purpose other than for use in a process resulting in their transformation or their destruction, for use as a refrigerant in equipment manufactured before January 1, 2020, for use as a fire suppression streaming agent listed as acceptable for use or acceptable subject to narrowed use limits for nonresidential applications in accordance with the regulations at subpart G of this part, for export under § 82.18(a) using unexpended Article 5 allowances, for export under § 82.18(b) using unexpended export production allowances, or for exemptions permitted in § 82.15(f). Effective January 1, 2015, no person may import class II controlled substances not subject to the requirements of paragraph (b) or (c) of this section (other than transshipments, heels, or used class II controlled substances) for any purpose other than for use in a process resulting in their transformation or their destruction, for exemptions permitted in § 82.15(f), for use as a refrigerant in equipment manufactured prior to January 1, 2020, or for use as a fire suppression streaming agent listed as acceptable for use or acceptable subject to narrowed use limits for nonresidential applications in accordance with the regulations at subpart G of this part.

(e)(1) Effective January 1, 2020, no person may produce HCFC-22 or HCFC-142b for any purpose other than for use in a process resulting in their transformation or their destruction, for export under § 82.18(a) using unexpended Article 5 allowances, or for export under § 82.18(b)

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using unexpended export production allowances, or for exemptions permitted in § 82.15(f).

Effective January 1, 2020, no person may import HCFC-22 or HCFC-142b for any purpose other than for use in a process resulting in their transformation or their destruction, or for exemptions permitted in § 82.15(f).

(2) Effective January 1, 2020, no person may produce HCFC-123 for any purpose other than for use in a process resulting in its transformation or its destruction, for use as a refrigerant in equipment manufactured before January 1, 2020, for export under § 82.18(a) using unexpended Article 5 allowances, or for export under § 82.18(b) using unexpended export production allowances, or for exemptions permitted in § 82.15(f). Effective January 1, 2020, no person may import HCFC-123 for any purpose other than for use in a process resulting in its transformation or its destruction, for use as a refrigerant in equipment manufactured before January 1, 2020, or for exemptions permitted in § 82.15(f).

* * * * *

(h) [Reserved].

* * * * *

5. Amend § 82.17 by revising to read as follows:

§ 82.17 Apportionment of baseline production allowances for class II controlled substances.

The following persons are apportioned baseline production allowances for HCFC-22, HCFC-141b, HCFC-142b, HCFC-123, HCFC-124, HCFC-225ca, and HCFC-225cb as set forth in the following table:

Person	Controlled Substance	Allowances (kg)
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AGC Chemicals Americas	HCFC-225ca	266,608
	HCFC-225cb	373,952
Arkema	HCFC-22	46,692,336
	HCFC-141b	24,647,925
	HCFC-142b	484,369
DuPont	HCFC-22	42,638,049
	HCFC-124	2,269,210
Honeywell	HCFC-22	37,378,252
	HCFC-141b	28,705,200
	HCFC-142b	2,417,534
	HCFC-124	1,759,681
MDA Manufacturing	HCFC-22	2,383,835
Solvay Specialty Polymers USA, LLC	HCFC-142b	6,541,764

6. Amend § 82.19 by revising to read as follows:

§ 82.19 Apportionment of baseline consumption allowances for class II controlled substances.

The following persons are apportioned baseline consumption allowances for HCFC-22, HCFC-142b, HCFC-123, HCFC-124, HCFC-225ca, and HCFC-225cb as set forth in the following table:

Person	Controlled Substance	Allowances (kg)
ABCO Refrigeration Supply	HCFC-22	279,366
AGC Chemicals Americas	HCFC-225ca	285,328

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	HCFC-225cb	286,832
Altair Partners	HCFC-22	302,011
Arkema	HCFC-22	48,637,642
	HCFC-141b	25,405,570
	HCFC-142b	483,827
	HCFC-124	3,719
Carrier	HCFC-22	54,088
Continental Industrial Group	HCFC-141b	20,315
Coolgas, Inc.	HCFC-141b	16,097,869
Combs Investment Property	HCFC-22	1,040,458
	HCFC-123	19,980
	HCFC-124	3,742
Discount Refrigerants	HCFC-141b	994
DuPont	HCFC-22	38,814,862
	HCFC-141b	9,049
	HCFC-142b	52,797
	HCFC-123	1,877,042
	HCFC-124	743,312
H.G. Refrigeration Supply	HCFC-22	40,068
Honeywell	HCFC-22	35,392,492
	HCFC-141b	20,749,489
	HCFC-142b	1,315,819
	HCFC-124	1,284,265
ICC Chemical Corp.	HCFC-141b	81,225

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ICOR	HCFC-124	81,220
Mexichem Fluor Inc.	HCFC-22	2,546,305
Kivlan & Company	HCFC-22	2,081,018
MDA Manufacturing	HCFC-22	2,541,545
Mondy Global	HCFC-22	281,824
National Refrigerants	HCFC-22	5,528,316
	HCFC-123	72,600
	HCFC-124	50,380
Perfect Technology Center, LP	HCFC-123	9,100
Refricenter of Miami	HCFC-22	381,293
Refricentro	HCFC-22	45,979
R-Lines	HCFC-22	63,172
Saez Distributors	HCFC-22	37,936
Solvay Fluorides, LLC	HCFC-22	3,781,691
	HCFC-141b	3,940,115
Solvay Specialty Polymers USA, LLC	HCFC-142b	194,536
Tulstar Products	HCFC-141b	89,913
	HCFC-123	34,800
	HCFC-124	229,582
USA Refrigerants	HCFC-22	14,865

7. Amend § 82.20 by revising paragraph (a) introductory text to read as follows:

§ 82.20 Availability of consumption allowances in addition to baseline consumption allowances for class II controlled substances.

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(a) A person may obtain at any time during the control period, in accordance with the provisions of this section, consumption allowances equivalent to the quantity of class II controlled substances that the person exported from the United States and its territories to a foreign state in accordance with this section, when that quantity of class II controlled substance was produced in the U.S. or imported into the United States with expended consumption allowances. Both the export of the class II controlled substance and the request for additional consumption allowances must occur during a calendar year in which consumption allowances were issued for that class II controlled substance.

* * * * *

8. Amend appendix B to subpart A and add footnote B following footnote A, revisions and additions to read as follows:

Appendix B to Subpart A of Part 82—Class II Controlled Substances^{ab}

Controlled Substance	ODP
1. HCFC-21 (CHFCI ₂) Dichlorofluoromethane	0.04
2. HCFC-22 (CHF ₂ Cl) Monochlorodifluoromethane	0.055
3. HCFC-31 (CH ₂ FCI) Monochlorofluoromethane	0.02
4. HCFC-121 (C ₂ HFCI ₄) Tetrachlorofluoroethane	0.01- 0.04
5. HCFC-122 (C ₂ HF ₂ CI ₃) Trichlorodifluoroethane	0.02 - 0.08
6. HCFC-123 (C ₂ HF ₃ CI ₂) Dichlorotrifluoroethane	0.02
7. HCFC-124 (C ₂ HF ₄ Cl) Monochlorotetrafluoroethane	0.022
8. HCFC-131 (C ₂ H ₂ FCI ₃) Trichlorofluoroethane	0.007-0.05
9. HCFC-132 (C ₂ H ₂ F ₂ CI ₂) Dichlorodifluoroethane	0.008-0.05
10. HCFC-133 (C ₂ H ₂ F ₃ Cl) Monochlorotrifluoroethane	0.02-0.06

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11. HCFC-141 (C ₂ H ₃ FCl ₂) Dichlorofluoroethane	0.005-0.07
12. HCFC-141b (CH ₃ CFCl ₂) Dichlorofluoroethane	0.11
13. HCFC-142 (C ₂ H ₃ F ₂ Cl) chlorodifluoroethane	0.008-0.07
14. HCFC-142b (CH ₃ CF ₂ Cl) Monochlorodifluoroethane	0.065
15. HCFC-151 (C ₂ H ₄ FCI) Chlorofluoroethane	0.003-0.005
16. HCFC-221 (C ₃ HFCI ₆) Hexachlorofluoropropane	0.015 - 0.07
17. HCFC-222 (C ₃ HF ₂ CI ₅) Pentachlorodifluoropropane	0.01 - 0.09
18. HCFC-223 (C ₃ HF ₃ CI ₄) Tetrachlorotrifluoropropane	0.01 - 0.08
19. HCFC-224 (C ₃ HF ₄ CI ₃) Trichlorotetrafluoropropane	0.01 - 0.09
20. HCFC-225 (C ₃ HF ₅ CI ₂) Dichloropentafluoropropane	0.02-0.07
HCFC-225ca (CF ₃ CF ₂ CHCI ₂)	
21. Dichloropentafluoropropane	0.025
HCFC-225cb (CF ₂ CI ₂ CF ₂ CHCI ₂)	
22. Dichloropentafluoropropane	0.033
23. HCFC-226 (C ₃ HF ₆ CI) Monochlorohexafluoropropane	0.02-0.1
24. HCFC-231 (C ₃ H ₂ FCI ₅) Pentachlorofluoropropane	0.05-0.09
25. HCFC-232 (C ₃ H ₂ F ₂ CI ₄) Tetrachlorodifluoropropane	0.008-0.1
26. HCFC-233 (C ₃ H ₂ F ₃ CI ₃) Trichlorotrifluoropropane	0.007-0.23
27. HCFC-234 (C ₃ H ₂ F ₄ CI ₂) Dichlorotetrafluoropropane	0.01-0.28
28. HCFC-235 (C ₃ H ₂ F ₅ CI) Monochloropentafluoropropane	0.03-0.52
29. HCFC-241 (C ₃ H ₃ FCI ₄) Tetrachlorofluoropropane	0.004-0.09
30. HCFC-242 (C ₃ H ₃ F ₂ CI ₃) Trichlorodifluoropropane	0.005-0.13
31. HCFC-243 (C ₃ H ₃ F ₃ CI ₂) Dichlorotrifluoropropane	0.007-0.12
31. HCFC-244 (C ₃ H ₃ F ₄ CI) Monochlorotetrafluoropropane	0.009-0.14
33. HCFC-251 (C ₃ H ₄ FCI ₃) Monochlorotetrafluoropropane	0.001-0.01

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34. HCFC-252 (C3H4F2Cl2) Dichlorodifluoropropane	0.005-0.04
35. HCFC-253 (C3H4F3Cl) Monochlorotrifluoropropane	0.003-0.03
36. HCFC-261 (C3H5FC12) Dichlorofluoropropane	0.002-0.02
37. HCFC-262 (C3H5F2Cl) Monochlorodifluoropropane	0.002-0.02
38. HCFC-271 (C3H6FC1) Monochlorofluoropropane	0.001-0.03

a According to Annex C of the Montreal Protocol, “Where a range of ODPs is indicated, the highest value in that range shall be used for the purposes of the Protocol. The ODPs listed as single value have been determined from calculations based on laboratory measurements. Those listed as a range are based on estimates and are less certain. The range pertains to an isomeric group. The upper value is the estimate of the ODP of the isomer with the highest ODP, and the lower value is the estimate of the ODP of the isomer with the lowest ODP.

b This table includes all isomers of the substances above, regardless of whether the isomer is explicitly listed on its own.

Subpart E—The Labeling of Products Using Ozone-Depleting Substances

9. Amend § 82.110 by revising the paragraph (c) heading to read as follows:

§ 82.110 Form of label bearing warning statement.

* * * * *

(c) Combined statement for multiple controlled substances * * *

* * * * *

10. Amend § 82.112 by revising paragraph (d) to read as follows:

§ 82.112 Removal of label bearing warning statement.

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* * * * *

(d) *Manufacturers, distributors, wholesalers, retailers that sell spare parts manufactured with controlled substances solely for repair.* Manufacturers, distributors, wholesalers, and retailers that purchase spare parts manufactured with a class I or class II substance from another manufacturer or supplier, and sell such spare parts for the sole purpose of repair, are not required to pass through an applicable warning label if such products are removed from the original packaging provided by the manufacturer from whom the products are purchased. * * *

* * * * *

11. Amend § 82.122 by revising paragraph (a)(1) to read as follows:

§ 82.122 Certification, recordkeeping, and notice requirements.

(a) * * * (1) Persons claiming the exemption provided in § 82.106(b)(4) must submit a written certification to the following address: Labeling Program Manager, Stratospheric Protection Division, Office of Atmospheric Programs, 6205-J, 1200 Pennsylvania Ave., NW, Washington DC 20460.

* * * * *

Subpart F—Recycling and Emissions Reductions

12. Amend § 82.164 by revising paragraph (f) to read as follows:

§ 82.164 Reclaimer certification.

* * * * *

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(f) Certificates are not transferrable. In the event of a change in ownership of an entity which reclaims refrigerant, the new owner of the entity shall certify within 30 days of the change of ownership pursuant to this section. In the event of a change in business management, location, or contact information, the owner of the entity shall notify EPA within 30 days of the change.

* * * * *

13. Amend § 82.166 by revising paragraph (h) to read as follows:

§ 82.166 Reporting and recordkeeping requirements.

* * * * *

(h) Reclaimers must maintain records of the quantity of material (the combined mass of refrigerant and contaminants) sent to them for reclamation, the mass of each refrigerant reclaimed, and the mass of waste products. Reclaimers must report this information to the Administrator annually within 30 days of the end of the calendar year.

* * * * *